

Publications of Werner Ebeling

2020

- [700] **On statistical calculations of individual ionic activity coefficients of electrolytes and seawater. III. Seawater models** (Ebeling, W. and Feistel, R.), *In ResearchGate, preprint*, pp. 1-48, 2020.

2019

- [699] **Discrete-breather-assisted charge transport along DNA-like molecular wires** (Chetverikov, A. P., Ebeling, W., Lakhno, V. D., and Velarde, M. G.), *In Physical Review E*, American Physical Society, volume 100, pp. 052203, 2019.
- [698] **Fehlerhaftigkeit in der Evolution und bei der Entstehung des Lebens** (Ebeling, W. and Feistel, R.), *In Sitzungsberichte der Leibniz-Sozietät der Wissenschaften zu Berlin*, volume 139/140, pp. 33-39, 2019.
- [697] **On statistical calculations of individual ionic activity coefficients of electrolytes and seawater. II. Modeling components** (Ebeling, W. and Feistel, R.), *In ResearchGate, preprint*, pp. 1-50, 2019.
- [696] **On statistical calculations of individual ionic activity coefficients of electrolytes and seawater. I. Basics** (Ebeling, W., Feistel, R., and Krienke, H.), *In ResearchGate, preprint*, pp. 1-44, 2019.
- [695] **Lectures on Quantum Statistics - With Applications to Dilute Gases and Plasmas** (Ebeling, W. and Pöschel, T.), Springer, Cham, volume 953, pp. 1-271, 2019.
- [694] **Nonlinear excitations and bound states of electrons, holes and solitons in bilayers of triangular lattices** (Chetverikov, A. P., Ebeling, W., Schöll, E., and Velarde, M. G.), *In European Physical Journal B*, volume 92, pp. 122, 2019.

2018

- [693] **Studies on Manfred Eigen's model for the self-organization of information processing** (Ebeling, W. and Feistel, R.), *In European Biophysics Journal*, volume 47, pp. 395-401, 2018.
- [692] **About Self-organization of Information and Synergetics** (Ebeling, W. and Feistel, R.), *Chapter in (Müller, S. C., Plath, P. J., Radons, G., Fuchs, A., eds.)*, Springer International Publishing, pp. 3-8, 2018.
- [691] **Entropie, Information und Emergenz** (Ebeling, W.), *In Zeitschrift der Leibniz-Sozietät*, volume 32, pp. 1-8, 2018.
- [690] **Excitation of solitons in hexagonal lattices and ways of controlling electron transport** (Chetverikov, A. P., Ebeling, W., Schöll, E., and Velarde, M.G.), *In International Journal of Dynamics and Control*, volume 6, pp. 1376-1383, 2018.
- [689] **Ionization equilibrium between electrons and holes in bilayers and adiabatic approximations** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In Physical Sciences and Technology*, volume 5, pp. 36-45, 2018.
- [688] **LOCALIZED LUMP-SOLITON-LIKE EXCITATIONS IN TRIANGULAR MORSE LATTICES** (Chetverikov, A. P., Dmitriev, S. V., Ebeling, W., Korznikova, E. A., and Velarde, M. G.), *In Materials Physics and Mechanics*, volume 35, pp. 16-20, 2018.

2017

- [687] **Excitation of solitons in hexagonal lattices and ways of controlling electron transport** (Chetverikov, A. P., Ebeling, W., Schöll, E., and Velarde, M. G.), *In International Journal of Dynamics and Control*, pp. 1376-1383, 2017.
- [686] **Selbstorganisation in Natur und Gesellschaft und Strategien zur Gestaltung der Zukunft** (Ebeling, W. and Feistel, R.), *In Zeitschrift der Leibniz-Sozietät e.V.*, volume 28, pp. 1-25, 2017.
- [685] **Energy conversion in isothermal nonlinear irreversible processes – struggling for higher efficiency** (Ebeling, W. and Feistel, R.), *In European Physical Journal Special Topics*, volume 226, pp. 2015–2030, 2017.
- [684] **Physical basis of information and the relation to entropy★** (Ebeling, W.), *In European Physical Journal Special Topics*, volume 226, pp. 161–176, 2017.
- [683] **Selbstorganisation in Natur und Gesellschaft und Strategien zur Gestaltung der Zukunft** (Ebeling, W. and Feistel, R.), pp. 1-27, 2017.

- [682] **Diskussionsbemerkung zum Vortrag von Gerhard Banse** (Ebeling, W.), *In Zeitschrift der Leibniz-Sozietät*, volume 27, pp. 1-2, 2017.
- [681] **Max Planck and Albrecht Unsöld on plasma partition functions and lowering of ionization energy** (Ebeling, W.), *In Contributions to Plasma Physics*, volume 57, pp. 441-451, 2017.
- [680] **Quantum Statistics of Dense Gases and Nonideal Plasmas** (Ebeling, W., Fortov, V.E., and Filinov, V.), Springer, Cham, pp. 1-562, 2017.
- [679] **A tribute to Dietrich Kremp** (Bornath, Th., Kraeft, W.-D., Redmer, R., Röpke, G., Schlages, M., Ebeling, W., and Bonitz, M.), *In Contributions to Plasma Physics*, volume 57, pp. 434-440, 2017.

2016

- [678] **From solitons to discrete breathers** (Velarde, M.G. and Chetverikov, A. P. and Ebeling, W. and Dmitriev, S. V. and Lakhno, V. D.), *In The European Physical Journal B*, volume 89, pp. 233, 2016.
- [677] **Soliton assisted control of source to drain electron transport along natural channels – crystallographic axes – in two-dimensional triangular crystallattices** (Chetverikov, A. P. and Ebeling, W. and Velarde, M. G.), *In The European Physical Journal B*, volume 89, pp. 196, 2016.
- [676] **Fazylkhan Bambetov (1939-2011) Doctor of Sciences, Professor, Academician of the National Academy of Sciences of the Republic of Kazakhstan** (Ebeling, W., Fortov, V. E., Deutsch, C., Röpke, G., Tkachenko, I. M., Petrov, O., Iosilevskiy, I., Son, E., Arkhipov, Yu., Ramazanov, T., Davletov, A., and Dzhumagulova, K.), *In Contributions to Plasma Physics*, volume 56, pp. 161-162, 2016.
- [675] **On the possibility that local mechanical forcing permits directionally-controlled long-range electron transfer along DNA-like molecular wires with no need of an external electric field** (Chetverikov, A. P., Ebeling, W., Lakhno, V. D., Shigaev, A. S., and Velarde, M. G.), *In The European Physical Journal B*, volume 89, pp. 101, 2016.
- [674] **Entropy and the Self-Organization of Information and Value** (Ebeling, W.), *In entropy*, volume 18, pp. 1-14, 2016.
- [673] **The work of Baimbetov on Nonideal Plasmas and Some Recent Developments: The work of Baimbetov on Nonideal Plasmas and Some Recent Developments** (Ebeling, W.), *In Contributions to Plasma Physics*, volume 56, pp. 163-175, 2016.
- [672] **Beiträge zur Geschichte der Synergetik - Allgemeine Prinzipien der Selbstorganisation in Natur und Gesellschaft** (Ebeling, W., Fortov, V. E., and Filinov, V.), Springer, Wiesbaden, pp. 1-328, 2016.
- [671] **Collisions of quasi-one-dimensional solitons in triangular Morse lattice** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In Letters on Materials*, Letters on Materials, volume 6, pp. 82-85, 2016.
- [670] **Long-Range Electron Transport Donor-Acceptor in Nonlinear Lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In entropy*, volume 18, 2016.

2015

- [669] **Comment on "Direct linear term in the equation of state of plasmas"** (Alastuey, A., Ballenegger, V., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 92, pp. 047101, 2015.
- [668] **Wave motions along lattices with nonlinear on-site and inter-site potentials. Cooperation and/or competition leading to lattice solitons and/or discrete breathers** (Velarde, M. G., Chetverikov, A. P., Ebeling, W., Dmitriev, S. V., and Lakhno, V. D.), *In Proceedings of the Estonian Academy of Sciences*, volume 64, pp. 396-404, 2015.
- [667] **Analysis of linear and nonlinear conductivity of plasma-like systems on the basis of the Fokker-Planck equation** (Trigger, S. A., Ebeling, W., van Heijst, G. J. F., and Litinski, D.), *In Physics of Plasmas*, volume 22, pp. 042108, 2015.
- [666] **Selforganization of Information and Value - Discussion of the Relations to Physics** (Ebeling, W.), 2015.
- [665] **Selforganization of Symbols and Information** (Ebeling, W. and Feistel, R.), *Chapter in Chaos, Information Processing and Paradoxical Games*, pp. 141-184, 2015.

- [664] **The unlikely high efficiency of a molecular motor based on active motion** (Ebeling, W.), *In The European Physical Journal Special Topics*, volume 224, pp. 1395-1403, 2015.
- [663] **Solitons and Charge Transport in Triangular and Quadratic Crystal Lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *Chapter in Quodons in Mica*, Springer International Publishing, volume 221, pp. 321-339, 2015.
- [662] **On the temperature dependence of fast electron transport in crystal lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In The European Physical Journal B*, volume 66, pp. 1-7, 2015.
- [661] **Bound States of Electrons in Harmonic and Anharmonic Crystal Lattices** (Brizhik, L., Chetverikov, A. P., Ebeling, W., Röpke, G., and Velarde, M. G.), *Chapter in Quodons in Mica* (Archilla, J. F. R., Jiménez, N., Sánchez-Morcillo, V. J., García-Raffi, L. M., eds.), Springer International Publishing, volume 221, pp. 291-319, 2015.
- [660] **Electron Transfer and Tunneling from Donor to Acceptor in Anharmonic Crystal Lattices** (Chetverikov, A. P., Cruzeiro, L., Ebeling, W., and Velarde, M. G.), *Chapter in Quodons in Mica* (Archilla, J. F. R., Jiménez, N., Sánchez-Morcillo, V. J., García-Raffi, L. M., eds.), Springer International Publishing, volume 221, pp. 267-289, 2015.

2014

- [659] **On the electron transport in polydiacetylene crystals and derivatives** (Velarde, M. G., Chetverikov, A. P., Ebeling, W., Wilson, E. G., and Donovan, K. J.), *In Epl*, volume 106, pp. 27004, 2014.
- [658] **Two-Dimensional Anharmonic Crystal Lattices: Solitons, Solectrons, and Electric Conduction** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In Frontiers of Fundamental Physics and Physics Education Research*, pp. 3-13, 2014.
- [657] **A geometric definition of Gabrielov numbers** (Ebeling, W. and Takahashi, A.), *In Revista Matematica Complutense*, volume 27, pp. 447-460, 2014.
- [656] **Über das Gedächtnis des Zufalls – zur Dialektik von Gesetz und Zufall** (Ebeling, W.), *In Sitzungen der Leibniz-Sozietät der Wissenschaften zu Berlin*, volume 118, pp. 71-78, 2014.
- [655] **Modellierungskonzepte der Synergetik und der Theorie der Selbstorganisation** (Ebeling, W. and Scharnhorst, A.), *Chapter in Handbuch Modellbildung und Simulation in den Sozialwissenschaften*, pp. 419-452, 2014.
- [654] **Analysis of Linear and Nonlinear Conductivity of Plasma-Like Systems on the Basis of the Fokker-Planck Equation** (Rosé, H., Ebeling, W., and Asselmeyer, T.), *In Physics of Plasmas*, pp. 1-14, 2014.
- [653] **High electrical conductivity in nonlinear model lattice crystals mediated by thermal excitation of solectrons** (Chetverikov, A. P., Ebeling, W., Röpke, G., and Velarde, M. G.), *In The European Physical Journal B*, volume 87, pp. 153, 2014.

2013

- [652] **Models of active Brownian motors based on internal oscillations** (Romanovsky, Y. M., Kargovsky, A., and Ebeling, W.), *In The European Physical Journal Special Topics*, volume 222, pp. 2465-2479, 2013.
- [651] **Onsagers fluctuation theory and new developments including non-equilibrium levy fluctuations** (Kusmierz, L., Ebeling, W., Sokolov, I. M., and Gudowska-Nowak, E.), *In Acta Physica Polonica*, volume 44, pp. 859-887, 2013.
- [650] **Controlling uphill motion of an active Brownian particle driven by shot-noise energy pulses** (Fiasconaro, A., Gudowska-Nowak, E., and Ebeling, W.), *In Physical Review E*, volume 87, pp. 032111_1-032111_6, 2013.
- [649] **Mirror Symmetry between Orbifold Curves and Cusp Singularities with Group Action** (Ebeling, W. and Takahashi, A.), *In International Mathematics Research Notices*, pp. 2240-2270, 2013.
- [648] **On bifurcations in complex ecological systems with diffusion and noise** (Ebeling, W., Feistel, R., and Feistel, S.), *In Ecological Complexity*, volume 14, pp. 2-7, 2013.
- [647] **Variance of the exponents of orbifold landau-ginzburg models** (Ebeling, W. and Takahashi, A.), *In Mathematical Research Letters*, volume 20, pp. 65-79, 2013.

- [646] **A geometric construction of Coxeter-Dynkin diagrams of bimodal singularities** (Ebeling, W. and Ploog, D.), *In* , volume 140, pp. 195-212, 2013.
- [645] **Nonlinear soliton-like excitations in two-dimensional lattices and charge transport** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In The European Physical Journal Special Topics*, volume 222, pp. 2531-2564, 2013.
- [644] **Towards a theory of degenerated solitons in doped lattices: Problems and perspectives** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *Chapter in Understanding Complex Systems: Without Bounds: A Scientific Canvas of Nonlinearity and Complex Dynamics*, pp. 443-466, 2013.

2012

- [643] **Orbifold Euler characteristics for dual invertible polynomials**, *In Moscow Mathematical Journal*, volume 12, pp. 49-54, 2012.
- [642] **Soliton-mediated compression density waves and charge density in 2d layers of underdoped cuprate-like lattices** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In Comptes Rendus Mecanique*, volume 340, pp. 910-916, 2012.
- [641] **Active Brownian particles From Individual to Collective Stochastic dynamics** (Romanczuk, P., Baer, M., Ebeling, W., Lindner, B., and Schimansky-Geier, L.), *In The European Physical Journal Special Topics*, volume 202, pp. 1-162, 2012.
- [640] **Saito duality between Burnside rings for pdf = ./2012-Ebeling+Gusein-Zade-BullLonMatSoc/2012-Ebeling+Gusein-Zade-BullLonMatSoc.pdf, invertible polynomials** (Ebeling, W. and Gusein-Zade, S. M.), *In Bulletin of the London Mathematical Society*, volume 44, pp. 814-822, 2012.
- [639] **Equivariant Poincaré series and monodromy zeta functions of quasihomogeneous polynomials** (Ebeling, W. and Gusein-Zade, S. M.), *In Publications Research Institute For Mathematical Sciences*, volume 48, pp. 653-660, 2012.
- [638] **Über den Zwang zur Philosophie in den Naturwissenschaften und die Schwierigkeiten des Einzelwissenschaftlers mit dem Wertbegriff – Fragen an Hermann Ley** (Ebeling, W.), *Chapter in* , Kleine Verlag, pp. 145-152, 2012.
- [637] **Controlling fast electron transfer at the nano-scale by solitonic excitations along crystallographic axes** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In European Physical Journal B*, volume 85, pp. 291, 2012.
- [636] **Bound States in Coulomb Systems - Old Problems and New Solutions** (Ebeling, W., Kraeft, W. D., and Röpke, G.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 52, pp. 7-16, 2012.
- [635] **Electron pairing and Coulomb repulsion in one-dimensional anharmonic lattices** (Brizhik, L., Chetverikov, A. P., Ebeling, W., Röpke, G., and Velarde, M. G.), *In Physical Review B*, volume 85, pp. 245105, 2012.
- [634] **On the quantum statistics of bound states within the Rutherford model of matter** (Ebeling, W., Kraeft, W. D., and Röpke, G.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 524, pp. 311-326, 2012.

2011

- [633] **Active particles with broken symmetry** (Romanczuk, P., Ebeling, W., Erdmann, U., and Schimansky-Geier, L.), *In Chaos: An Interdisciplinary Journal of Nonlinear Science*, volume 21, pp. 047517, 2011.
- [632] **NUMERICAL EVIDENCE OF SOLITON-MEDIATED ELECTRON PAIRING IN HEATED ANHARMONIC CRYSTAL LATTICES.** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In International Journal of Bifurcation and Chaos*, volume 21, pp. 1595-1600, 2011.
- [631] **Harmonic oscillator under Lévy noise: Unexpected properties in the phase space** (Sokolov, I. M., Ebeling, W., and Dybiec, B.), *In Physical Review E*, volume 83, pp. 041118, 2011.
- [630] **Static and dynamic structure factors with account of the ion structure for high-temperature alkali and alkaline earth plasmas** (Sadykova, S. P., Ebeling, W., and Tkachenko, I. M.), *In European Physical Journal D*, volume 61, pp. 117-130, 2011.

- [629] **On the possibility of electric transport mediated by long living intrinsic localized solectron modes** (Cantu Ros, O. G., Cruzeiro, L., Velarde, M. G., and Ebeling, W.), *In European Physical Journal B*, volume 80, pp. 545-554, 2011.
- [628] **Physics of Self-Organization and Evolution** (Feistel, R. and Ebeling, W.), WILEY-VCH Verlag, 2011.
- [627] **Introduction to the reaction theory and cluster dynamics of enzymes** (Ebeling, W., Ntrepko, A., and Romanovsky, Y. M.), *Chapter in 1*, WORLD SCIENTIFIC, pp. 1-35, 2011.
- [626] **Günter Tembrock und sein interdisziplinäres Wirken** (Ebeling, W.), *Chapter in* , pp. 7-8, 2011.
- [625] **Monodromy of dual invertible polynomials** (Ebeling, W. and Gusein-Zade, S. M.), *In Moscow Mathematical Journal*, volume 11, pp. 463-472, 2011.
- [624] **Strange duality of weighted homogeneous polynomials** (Ebeling, W. and Takahashi, A.), *In Compositio Mathematica*, volume 147, pp. 1413-1433, 2011.
- [623] **Localized nonlinear, soliton-like waves in two-dimensional anharmonic lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In Wave Motion*, volume 48, pp. 753-760, 2011.
- [622] **Properties of nano-scale soliton-like excitations in two-dimensional lattice layers** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In Physica D: Nonlinear Phenomena*, volume 240, pp. 1954-1959, 2011.
- [621] **Soliton-like excitations and solectrons in two-dimensional nonlinear lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In European Physical Journal B*, volume 80, pp. 137-145, 2011.
- [620] **Soliton-like dynamical clusters in atomic layers** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *Chapter in (Schmelzer, J.W.P., Roepke, G., Priezhev, V.B., eds.)*, Bogoliubov Laboratory of Theoretical Physics, pp. 191-201, 2011.
- [619] **Identity of electrons and ionization equilibrium** (Bobrov, V. B., Trigger, S. A., and Ebeling, W.), *In Epl*, volume 95, pp. 25001, 2011.

2010

- [618] **The thermodynamic cycle of an entropy-driven stepper motor walking hand-over-hand** (Zabicki, M., Ebeling, W., and Gudowska-Nowak, E.), *In Chemical Physics*, volume 375, pp. 472-478, 2010.
- [617] **The Efficiency of Energy Conversion for an Entropy Driven Stepper Motor Walking Hand-over-Hand** (Zabicki, M., Gudowska-Nowak, E., and Ebeling, W.), *In Acta Physica Polonica B*, volume 41, pp. 1181-1189, 2010.
- [616] **On the mathematical modeling of soliton-mediated long-range electron transfer** (Velarde, M. G., Chetverikov, A. P., Ebeling, W., Hennig, D., and Kozak, J. J.), *In International Journal of Bifurcation and Chaos*, volume 20, pp. 185-194, 2010.
- [615] **On anomalous diffusion in a plasma in velocity space** (Trigger, S. A., Ebeling, W., van Heijst, G. J. F., Schram, P. P. J. M., and Sokolov, I. M.), *In Physical Plasmas*, volume 17, pp. 042102, 2010.
- [614] **Molecular Dynamic Simulations of Electric Microfield Distributions in a Nonideal Electron-Positron Plasma** (Sadykova, S. P., Ebeling, W., Sokolov, I. M., and Valuev, I. A.), *In Plasma Physics Reports*, volume 36, pp. 1161-1166, 2010.
- [613] **Thermodynamics of the rupture in a Morse lattice** (Likhachev, V. N., Astakhova, T. Y., Ebeling, W., Velarde, M. G., and Vinogradov, G. A.), *In European Physical Journal B*, volume 75, pp. 443-450, 2010.
- [612] **Max Plancks Beiträge zur Thermodynamik** (Hoffmann, D. and Ebeling, W.), *In Sitzungsberichte der Leibniz-Sozietät*, pp. 73-84, 2010.
- [611] **Max Plancks Beiträge zum Verständnis thermodynamischer Gleichgewichte und Transportprozesse** (Hoffmann, D. and Ebeling, W.), *In Max Planck und die moderne Physik*, pp. 67-76, 2010.
- [610] **The Influence of Pauli Blocking Effects on the Mott Transition in Dense Hydrogen** (Ebeling, W., Blaschke, D., Redmer, R., Reinholz, H., and Röpke, G.), *Chapter in Metal-to-Nonmetal Transitions (Redmer, R., Hensel, F., Holst, B., eds.)*, Springer, volume 132, pp. 37-61, 2010.
- [609] **McKay correspondence for the Poincaré series of Kleinian and Fuchsian singularities**

(Ebeling, W. and Ploog, D.), *In Mathematische Annalen*, volume 347, pp. 689-703, 2010.

- [608] **Zur Theorie der Selbstorganisation und Evolution und über interdisziplinäre Arbeit in Berlin, Rostock und Kühlungsborn 1971-1990** (Ebeling, W.), *In Für eine Philosophie der Biologie*, volume 26, pp. 171-184, 2010.
- [607] **Convolutd Gauss-Levy distributions and exploding Coulomb clusters** (Ebeling, W., Romanovsky, Y. M., Sokolov, I. M., and Valuev, I. A.), *In The European Physical Journal Special Topics*, volume 187, pp. 157-170, 2010.
- [606] **Poincaré series and Coxeter functors for Fuchsian singularities** (Ebeling, W. and Ploog, D.), *In Advances in Mathematics*, volume 225, pp. 1387-1398, 2010.

2009

- [605] **The influence of Pauli blocking effects on the properties of dense hydrogen** (Ebeling, W., Blaschke, D., Redmer, R., Reinholz, H., and Roepke, G.), *In Journal of Physics A: Mathematical and Theoretical*, IOP Publishing, volume 42, pp. 214033, 2009. [[pdf](#)] [[doi](#)]
- [604] **Poincaré series and monodromy of the simple and unimodal boundary singularities** (Ebeling, W.), *In Proceedings of the Steklov Institute of Mathematics*, volume 267, pp. 50-58, 2009. [[pdf](#)] [[doi](#)]
- [603] **Anharmonicity and soliton-mediated electric transport. Is a kind of superconduction possible at room temperature?** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In 4th International Conference on Physics and Control*, pp. 8-13, 2009. [[pdf](#)]
- [602] **Dynamics of individuals and swarms with shot noise induced by stochastic food supply** (Strefler, J., Ebeling, W., Gudowska-Nowak, E., and Schimansky-Geier, L.), *In European Physical Journal B*, volume 72, pp. 597-606, 2009. [[pdf](#)] [[doi](#)]
- [601] **Equilibrium thermodynamics and thermodynamic processes in nonlinear systems** (Likhachev, V. N., Astakhova, T. Y., Ebeling, W., and Vinogradov, G. A.), *In European Physical Journal B*, volume 72, pp. 247-256, 2009. [[pdf](#)] [[doi](#)]
- [600] **Selbstorganisation und Mobilität von Wissenschaftlern – Modelle für die Dynamik von Problemfeldern und Wissenschaftsgebieten** (Ebeling, W. and Scharnhorst, A.), *Chapter in (Ebeling, W., Parthey, H., eds.)*, Wissenschaftlicher Verlag Berlin, pp. 9-27, 2009. [[pdf](#)]
- [599] **Vorwort** (Ebeling, W. and Parthey, H.), *Chapter in (Ebeling, W., Parthey, H., eds.)*, Wissenschaftlicher Verlag Berlin, pp. 7-7, 2009. [[pdf](#)]
- [598] **Selbstorganisation in Wissenschaft und Technik: Wissenschaftsforschung Jahrbuch 2008**, (Ebeling, W., Parthey, H., eds.), Wissenschaftlicher Verlag Berlin, pp. 1-289, 2009. [[pdf](#)]
- [597] **Bound states of electrons with soliton-like excitations in thermal systems - adiabatic approximations** (Ebeling, W., Velarde, M. G., and Chetverikov, A. P.), *In Condensed Matter Physics*, volume 12, pp. 633-645, 2009. [[pdf](#)]
- [596] **Editorial: Special Issue to the 100th birthday of Mykola Bogolyubov** (Ebeling, W., Mrygold, I., Plakida, N., and Zagorodny, A.), *In Condensed Matter Physics*, volume 12, pp. 533, 2009. [[pdf](#)]
- [595] **The influence of Pauli blocking effects on the properties of dense hydrogen** (Ebeling, W., Blaschke, D., Redmer, R., Reinholz, H., and Röpke, G.), *In Journal of Physics A: Mathematical and Theoretical*, volume 42, pp. 214033, 2009. [[pdf](#)] [[doi](#)]
- [594] **Anharmonicity and Soliton-Mediated Transport: Thermal Solitons, Solectrons and Electric Transport in Nonlinear Conducting Lattices** (Ebeling, W., Velarde, M. G., Chetverikov, A. P., and Hennig, D.), *In Self-Organization of Molecular Systems: From Molecules Clusters To Nanotubes Proteins*, pp. 171-198, 2009. [[pdf](#)] [[doi](#)]
- [593] **On Indices of 1-Forms on Determinantal Singularities** (Ebeling, W. and Gusein-Zade, S. M.), *In Proceedings of the Steklov Institute of Mathematics*, volume 267, pp. 113-124, 2009. [[pdf](#)] [[doi](#)]
- [592] **Tuning active Brownian motion with shot-noise energy pulses** (Ebeling, W., Gudowska-Nowak, E., and Fiasconaro, A.), *In Journal of Statistical Mechanics-Theory Experiment*, volume 2009, pp. 01029, 2009. [[pdf](#)] [[doi](#)]
- [591] **Local electron distributions and diffusion in anharmonic lattices mediated by thermally excited solitons** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In European Physical Journal B*, volume 70, pp. 217-227, 2009. [[pdf](#)] [[doi](#)]
- [590] **Sensitive Networks – Modelling Self-Organization and Innovation Processes in Networks**

(Hartmann-Sonntag, I., Scharnhorst, A., and Ebeling, W.), *Chapter in* , Springer, pp. 285-327, 2009. [\[pdf\]](#)

2008

- [589] **Electron trapping by solitons. Classical versus quantum mechanical approach** (Velarde, M. G., Ebeling, W., Chetverikov, A. P., and Hennig, D.), *In International Journal of Bifurcation and Chaos*, volume 18, pp. 521-526, 2008. [\[pdf\]](#) [\[doi\]](#)
- [588] **Thermal Solitons and Solelectrons in 1D Anharmonic Lattices up to Physiological Temperatures** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In International Journal of Bifurcation and Chaos*, volume 18, pp. 3815-3823, 2008. [\[pdf\]](#)
- [587] **Anharmonic Oscillations, Dissipative Solitons and Non-Ohmic Supersonic Electric Transport** (Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *Chapter in Dissipative Solitons: From Optics to Biology and Medicine*, Springer, Berlin, Heidelberg, pp. 1-15, 2008. [\[pdf\]](#) [\[doi\]](#)
- [586] **Compounds of paired electrons and lattice solitons moving with supersonic velocity** (Hennig, D., Velarde, M. G., Ebeling, W., and Chetverikov, A. P.), *In Physical Review E*, volume 78, pp. 066606, 2008. [\[pdf\]](#) [\[doi\]](#)
- [585] **Active Brownian motion models and applications to ratchets** (Fiasconaro, A., Ebeling, W., and Gudowska-Nowak, E.), *In European Physical Journal B*, volume 65, pp. 403-414, 2008. [\[pdf\]](#) [\[doi\]](#)
- [584] **Active Brownian Particle and Random Walk Theories of the Motions of Zooplankton: Application to Experiments with Swarms of Daphnia** (Erdmann, U., Ebeling, W., Schimansky-Geier, L., Ordemann, A., and Moss, F.), *In Journal of Theoretical Biology*, pp. 1-38, 2008. [\[pdf\]](#)
- [583] **Problems of Bound States in Plasmas-Physical and Chemical Picture Revisited** (Ebeling, W.), *In Physics of Particles and Nuclei*, volume 39, pp. 993-997, 2008. [\[pdf\]](#) [\[doi\]](#)
- [582] **Swarm dynamics, attractors and bifurcations of active Brownian motion** (Ebeling, W. and Schimansky-Geier, L.), *In The European Physical Journal Special Topics*, volume 157, pp. 17-31, 2008. [\[pdf\]](#) [\[doi\]](#)
- [581] **Statistical distributions for Hamiltonian systems coupled to energy reservoirs and applications to molecular energy conversion** (Ebeling, W., Gudowska-Nowak, E., and Fiasconaro, A.), *In Acta Physica Polonica B*, volume 39, pp. 1251-1272, 2008. [\[pdf\]](#)
- [580] **On stochastic dynamics in physics - remarks on history and terminology** (Ebeling, W., Gudowska-Nowak, E., and Sokolov, I. M.), *In Acta Physica Polonica B*, volume 39, pp. 1003-1018, 2008. [\[pdf\]](#)
- [579] **Max Planck und die Thermodynamik**, *Chapter in Über Thermodynamische Gleichgewichte* (Ebeling, W., Hoffmann, D., eds.), Verlag H. Deutsch Frankfurt a.M., volume 299, pp. 5 - 24, 2008. [\[pdf\]](#)
- [578] **Central Pattern Generator Incorporating the Actuator Dynamics for a Hexapod Robot** (Makarov, V. A., Del Río, E., Bedia, M. G., Velarde, M. G., and Ebeling, W.), *In* , World Academy of Science, Engineering and Technology, volume 2, pp. 577 - 582, 2008. [\[pdf\]](#)

2007

- [577] **Dissipative solitons, wave asymmetry and dynamical ratchets** (Del Río, E., Velarde, M. G., and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 377, pp. 435-447, 2007. [\[pdf\]](#) [\[doi\]](#)
- [576] **Electro-Mechanical Control of Hexapod Robot Locomotion** (Del Río, E., Makarov, V. A., Velarde, M. G., Bedia, M. G., and Ebeling, W.), *In* , pp. 1-10, 2007. [\[pdf\]](#)
- [575] **Electron capture and transport mediated by lattice solitons** (Hennig, D., Chetverikov, A. P., Velarde, M. G., and Ebeling, W.), *In Physical Review E*, volume 76, pp. 046602, 2007. [\[pdf\]](#) [\[doi\]](#)
- [574] **Active brownian motion of pairs and swarms of particles** (Ebeling, W.), *In Acta Physica Polonica B*, volume 38, pp. 1657-1671, 2007. [\[pdf\]](#)
- [573] **Überlegungen zur Evolution des Klimas** (Ebeling, W. and Feistel, R.), *In* , pp. 1-7, 2007. [\[pdf\]](#)
- [572] **Zum 80. Geburtstag von Karl Lanius** (Ebeling, W.), *In Sitzungsberichte der Leibniz-Sozietät*, volume 93, pp. 5-10, 2007. [\[pdf\]](#)

2006

- [571] **Effect of anharmonicity on charge transport in hydrogen-bonded systems** (Hennig, D., Neißner, C., Velarde, M. G., and Ebeling, W.), *In Physical Review B*, American Physical Society, volume 73, pp. 024306, 2006. [\[pdf\]](#) [\[doi\]](#)
- [570] **Thermodynamics – Past, Present and Future** (Ebeling, W.), *Chapter in Advances in Solid State Physics (Kramer, B., ed.)*, Springer Berlin Heidelberg, volume 45, pp. 3-14, 2006. [\[pdf\]](#) [\[doi\]](#)
- [569] **On soliton-mediated fast electric conduction in a nonlinear lattice with Morse interactions** (Velarde, M. G., Ebeling, W., Hennig, D., and Neißner, C.), *In International Journal of Bifurcation and Chaos*, volume 16, pp. 1035-1039, 2006. [\[pdf\]](#) [\[doi\]](#)
- [568] **Metakompetenzen und Kompetenzentwicklung in Evolutions- und Selbstorganisationsmodellen** (Scharnhorst, A. and Ebeling, W.), *In QUEM-report*, volume 95, pp. 15-113, 2006. [\[pdf\]](#)
- [567] **Anharmonicity and its significance to non-Ohmic electric conduction** (Makarov, V. A., Velarde, M. G., Chetverikov, A. P., and Ebeling, W.), *In Physical Review E*, volume 73, pp. 066626, 2006. [\[pdf\]](#) [\[doi\]](#)
- [566] **Monte Carlo simulations of dense quantum plasmas** (Filinov, V. S., Bonitz, M., Fortov, V. E., Ebeling, W., Fehske, H., Kremp, D., Kraeft, W. D., Bezukrovniy, V., and Levashov, P.), *In Journal of Physics A: Mathematical and General*, volume 39, pp. 4421-4429, 2006. [\[pdf\]](#) [\[doi\]](#)
- [565] **Statistical Theory of Electrolytic Skin Effects** (Feistel, R. and Ebeling, W.), *In Nucleation Theory and Applications*, volume 5, pp. 89-107, 2006. [\[pdf\]](#) [\[doi\]](#)
- [564] **New species in evolving networks—stochastic theory of sensitive networks and applications on the metaphorical level** (Ebeling, W., Feistel, R., Hartmann-Sonntag, I., Schimansky-Geier, L., and Scharnhorst, A.), *In Biosystems*, volume 85, pp. 65 - 71, 2006. [\[pdf\]](#) [\[doi\]](#)
- [563] **Value in Physics and Self-Organization in Relation to Marx's Theory of Value.** (Ebeling, W.), *In Nature, Society and Thought - a Journal of Dialectical and Historical Materialism*, volume 19, pp. 133-144, 2006. [\[pdf\]](#)
- [562] **Nonlinear excitations and electric transport in dissipative Morse-Toda lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In European Physical Journal B*, volume 51, pp. 87-99, 2006. [\[pdf\]](#) [\[doi\]](#)
- [561] **Dissipative solitons and complex currents in active lattices** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In International Journal of Bifurcation and Chaos*, volume 16, pp. 1613-1632, 2006. [\[pdf\]](#) [\[doi\]](#)
- [560] **The method of effective potentials in the quantum-statistical theory of plasmas** (Ebeling, W., Filinov, A., Bonitz, M., Filinov, V. S., and Pohl, T.), *In Journal of Physics A: Mathematical and General*, volume 39, pp. 4309-4317, 2006. [\[pdf\]](#)

2005

- [559] **Noise-induced transition from translational to rotational motion of swarms** (Erdmann, U., Ebeling, W., and Mikhailov, A. S.), *In Physical Review E*, volume 71, pp. 051904, 2005. [\[pdf\]](#) [\[doi\]](#)
- [558] **On the attractors of two-dimensional Rayleigh oscillators including noise** (Erdmann, U. and Ebeling, W.), *In International Journal of Bifurcation and Chaos*, volume 15, pp. 3623-3633, 2005. [\[pdf\]](#) [\[doi\]](#)
- [557] **Thermodynamics and phase transitions in dissipative and active Morse chains** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, volume 44, pp. 509-519, 2005. [\[pdf\]](#) [\[doi\]](#)
- [556] **A form of active Brownian motor-like on a (nonlinear) Toda lattice** (Del Río, E., Ebeling, W., and Velarde, M. G.), *In Noise and Fluctuations*, volume 780, pp. 21-24, 2005. [\[pdf\]](#)
- [555] **Stationary distribution densities of active Brownian particles** (Schimansky-Geier, L., Ebeling, W., and Erdmann, U.), *In Acta Physica Polonica B*, volume 36, pp. 1757-1769, 2005. [\[pdf\]](#)
- [554] **Evolutionary search agents in complex landscapes - a new model for the role of competence and meta-competence (EVOLINO and other simulation tools)** (Scharnhorst, A. and Ebeling, W.), 2005. [\[pdf\]](#)
- [553] **Electric and magnetic microfields inside and outside space-limited configurations of ions and ionic currents** (Romanovsky, Y. M., Ebeling, W., and Schimansky-Geier, L.), *In Kinetic Theory of*

Nonideal Plasmas, volume 11, pp. 99-110, 2005. [\[pdf\]](#) [\[doi\]](#)

- [552] **Klimontovich's contributions to the kinetic theory of nonlinear Brownian motion and new development** (Ebeling, W., Dunkel, J., Erdmann, U., and Trigger, S. A.), *In Kinetic Theory of Nonideal Plasmas*, volume 11, pp. 89-98, 2005. [\[pdf\]](#) [\[doi\]](#)
- [551] **Statistical Thermodynamics and Stochastic Theory of Non-equilibrium Systems** (Ebeling, W. and Sokolov, I. M.), World Scientific Singapore, 2005.
- [550] **Thermodynamics - Past, present and future** (Ebeling, W.), *In Advances In Solid State Physics*, volume 45, pp. 3-14, 2005. [\[pdf\]](#) [\[doi\]](#)
- [549] **A historical approach to entropy: Collected papers of Eri Yagi and her coworkers** (Ebeling, W.), *In Isis*, volume 96, pp. 294, 2005. [\[pdf\]](#) [\[doi\]](#)
- [548] **Active Brownian motion - Stochastic dynamics of swarms** (Ebeling, W. and Erdmann, U.), *In Complexity, Metastability and Nonextensivity*, volume 26, pp. 277-286, 2005. [\[pdf\]](#) [\[doi\]](#)
- [547] **Stochastic dynamics of active agents in external fields** (Ebeling, W., Schimansky-Geier, L., Neiman, A., and Scharnhorst, A.), *In Fluctuation and Noise Letters*, volume 5, pp. L185-L192, 2005. [\[pdf\]](#) [\[doi\]](#)
- [546] **Noise in condensed matter and complex systems** (Ebeling, W. and Spagnolo, B.), *In Fluctuation Noise Letter*, volume 5, pp. L159-L161, 2005. [\[pdf\]](#) [\[doi\]](#)
- [545] **Preface: Contrib. Plasma Phys. 3-4/2005** (Ebeling, W., Redmer, R., Röpke, G., and Romanovsky, Y. M.), *In Contributions to Plasma Physics*, volume 45, pp. 157-158, 2005. [\[pdf\]](#) [\[doi\]](#)
- [544] **The behavioural transition from straight to curve walking: kinetics of leg movement parameters and the initiation of turning** (Durr, V. and Ebeling, W.), *In Journal of Experimental Biology*, volume 208, pp. 2237-2252, 2005. [\[pdf\]](#) [\[doi\]](#)
- [543] **On the possibility of electric conduction mediated by dissipative solitons** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In International Journal of Bifurcation and Chaos*, volume 15, pp. 245-251, 2005. [\[pdf\]](#) [\[doi\]](#)
- [542] **Nonlinear Ionic Excitations, Dynamic Bound States, and Nonlinear Currents in a One-dimensional Plasma** (Chetverikov, A. P., Ebeling, W., and Velarde, M. G.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 45, pp. 275-283, 2005. [\[pdf\]](#) [\[doi\]](#)

2004

- [541] **Entropy and Complexity Analysis of Intracranially Recorded Egg** (Steuer, R., Ebeling, W., Bengner, T., Dehnicke, C., Hättig, H., and Meencke, H.-J.), *In International Journal of Bifurcation and Chaos*, volume 14, pp. 815-823, 2004. [\[pdf\]](#) [\[doi\]](#)
- [540] **Fluctuations of electric microfields in laser-produced ion clusters: Enhancement of nuclear fusion** (Romanovsky, Y. M. and Ebeling, W.), *In Laser Physics*, volume 14, pp. 850-856, 2004. [\[pdf\]](#)
- [539] **Distributions of Electric and Magnetic Microfields Inside Spherical Random Configurations of Ions and Ionic Currents** (Romanovsky, Y. M., Ebeling, W., and Schimansky-Geier, L.), *In Modern Problems of Statistical Physics*, volume 3, pp. 3-15, 2004. [\[pdf\]](#)
- [538] **On phase transition in strongly coupled hydrogen plasma** (Filinov, V. S., Levashov, P., Bonitz, M., Fortov, V. E., and Ebeling, W.), *In Shock Compression of Condensed Matter-2003: Proc. of the Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, held in Portland, Oregon, July 20-25, 2003*, volume 706, pp. 53-56, 2004. [\[pdf\]](#)
- [537] **Temperature-dependent quantum pair potentials and their application to dense partially ionized hydrogen plasmas** (Filinov, A., Golubnychiy, V. O., Bonitz, M., Ebeling, W., and Dufty, J. W.), *In Physical Review E*, volume 70, pp. 046411, 2004. [\[pdf\]](#) [\[doi\]](#)
- [536] **Nonlinear Brownian motion – mean square displacement** (Ebeling, W.), *In Condensed Matter Physics*, volume 7, pp. 539-550, 2004. [\[pdf\]](#)
- [535] **Active Brownian Motion – Self-Formation in Systems of Self-Propelled Particles** (Ebeling, W.), *In Self Formation Theory Applications*, volume 97-98, pp. 37-42, 2004. [\[pdf\]](#) [\[doi\]](#)
- [534] **Statistical mechanics of confined systems with rotational excitations** (Ebeling, W. and Röpke, G.), *In Physica D: Nonlinear Phenomena*, volume 187, pp. 268-280, 2004. [\[pdf\]](#) [\[doi\]](#)

- [533] **Fermi resonance - New applications of an old effect** (Ebeling, W., Kargovsky, A., Netrebko, A., and Romanovsky, Y. M.), *In Fluctuation and Noise Letters*, volume 4, pp. L183-L193, 2004. [[pdf](#)] [[doi](#)]
- [532] **Monodromies and Poincare series of quasihomogeneous complete intersections** (Ebeling, W. and Gusein-Zade, S. M.), *In Abhandlungen Aus Dem Mathematischen Seminar Der Universität Hamburg*, volume 74, pp. 175-179, 2004. [[pdf](#)] [[doi](#)]
- [531] **Exact solutions for evolutionary strategies on harmonic landscapes** (Dunkel, J., Schimansky-Geier, L., and Ebeling, W.), *In Evolutionary Computation*, volume 12, pp. 1-17, 2004. [[pdf](#)]
- [530] **Active and passive Brownian motion of charged particles in two-dimensional plasma models** (Dunkel, J., Ebeling, W., and Trigger, S. A.), *In Physical Review E*, volume 70, pp. 046406, 2004. [[pdf](#)] [[doi](#)]
- [529] **Structural properties of molecular chains with Lennard-Jones and morse potentials** (Chetverikov, A. P. and Ebeling, W.), *In Journal of Structural Chemistry*, volume 45, pp. 420-426, 2004. [[pdf](#)] [[doi](#)]

2003

- [528] **Kramers problem in evolutionary strategies** (Dunkel, J., Ebeling, W., Schimansky-Geier, L., and Hänggi, P.), *In Physical Review E*, American Physical Society, volume 67, pp. 061118, 2003. [[pdf](#)] [[doi](#)]
- [527] **Mode transitions and wave propagation in a driven-dissipative Toda-Rayleigh ring** (Del Río, E., Makarov, V. A., Velarde, M. G., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 67, pp. 056208, 2003. [[pdf](#)] [[doi](#)]
- [526] **Stochastic Dynamics of Reacting Biomolecules** (Ebeling, W., Schimansky-Geier, L., and Romanovsky, Y. M.), World Scientific Pub Co Inc, pp. 344, 2003. [[pdf](#)]
- [525] **Internal energy of high-density hydrogen: Analytic approximations compared with path integral Monte Carlo calculations** (Trigger, S. A., Ebeling, W., Filinov, V. S., Fortov, V. E., and Bonitz, M.), *In Journal of Experimental and Theoretical Physics*, Nauka/Interperiodica, volume 96, pp. 465-479, 2003. [[pdf](#)] [[doi](#)]
- [524] **Experimental study of a noisy dissipative-driven ring lattice with Morse interactions** (Del Río, E., Makarov, V. A., Ebeling, W., and Velarde, M. G.), *In Noise in Complex Systems and Stochastic Dynamics*, volume 5114, pp. 318-326, 2003. [[pdf](#)] [[doi](#)]
- [523] **Coulombic Phase Transitions in Dense Plasmas** (Ebeling, W. and Norman, G. E.), *In Journal of Statistical Physics*, Kluwer Academic Publishers-Plenum Publishers, volume 110, pp. 861-877, 2003. [[pdf](#)] [[doi](#)]
- [522] **Scientific Information in Continuous Characteristics Spaces** (Scharnhorst, A., Wouters, P., and Ebeling, W.), *In Proceedings of the 9th International Conference on Scientometrics and Informetrics*, pp. 280-288, 2003. [[pdf](#)]
- [521] **Corrections of electron impact ionization rates by plasmas electric microfield** (Romanovsky, Y. M. and Ebeling, W.), *In Physics Letters A*, volume 317, pp. 150-155, 2003. [[pdf](#)] [[doi](#)]
- [520] **Recoil ion momentum distributions from laser-induced double ionization** (Pohl, T., Ebeling, W., and Romanovsky, Y. M.), *In Physics Letters A*, volume 311, pp. 396 - 402, 2003. [[pdf](#)] [[doi](#)]
- [519] **Correction algorithm for finite sample statistics** (Pöschel, T., Ebeling, W., Frömmel, C., and Ramirez, R.), *In European Physical Journal E*, volume 12, pp. 531-541, 2003. [[pdf](#)] [[doi](#)]
- [518] **Plasma phase transition in dense hydrogen and electron-hole plasmas** (Filinov, V. S., Bonitz, M., Levashov, P., Fortov, V. E., Ebeling, W., Schlanges, M., and Koch, S. W.), *In Journal of Physics A: Mathematical and General*, volume 36, pp. 6069-6076, 2003. [[pdf](#)] [[doi](#)]
- [517] **Improved Kelbg potential for correlated Coulomb systems** (Filinov, A., Bonitz, M., and Ebeling, W.), *In Journal of Physics A-Mathematical and General*, volume 36, pp. 5957-5962, 2003. [[pdf](#)] [[doi](#)]
- [516] **Collective motion of Brownian particles with hydrodynamic interactions** (Erdmann, U. and Ebeling, W.), *In Fluctuation and Noise Letters*, volume 3, pp. L145-L154, 2003. [[pdf](#)] [[doi](#)]
- [515] **The Poincare series of some special quasihomogeneous surface singularities** (Ebeling, W.), *In Publications Research Institute For Mathematical Sciences*, volume 39, pp. 393-413, 2003. [[pdf](#)] [[doi](#)]

- [514] **Self-Organization, Active Brownian Dynamics, and Biological Applications** (Ebeling, W. and Schweitzer, F.), *In Nova Acta Leopoldina*, volume 88, pp. 169-188, 2003. [\[pdf\]](#)
- [513] **Dynamics and stochastics of swarms of self-propelled Brownian particles** (Ebeling, W. and Erdmann, U.), *In Fluctuations and Noise in Biological, Biophysical, and Biomedical Systems*, volume 5110, pp. 161-171, 2003. [\[pdf\]](#) [\[doi\]](#)
- [512] **Synchronization of stochastic motions in swarms of active Brownian particles with global coupling** (Ebeling, W.), *In Fluctuation and Noise Letters*, volume 3, pp. L137-L144, 2003. [\[pdf\]](#) [\[doi\]](#)
- [511] **A dissipative one-dimensional collision model with intermediate energy storage** (Dunkel, J., Ebeling, W., Schmelzer, J., and Ropke, G.), *In Physica D: Nonlinear Phenomena*, volume 185, pp. 158-174, 2003. [\[pdf\]](#) [\[doi\]](#)
- [510] **Stochastic dynamics of enzymes - molecular scissors** (Chichigina, O. A., Ebeling, W., Makarov, V. A., Netrebko, A., Romanovsky, Y. M., and Schimansky-Geier, L.), *In Fluctuations and Noise in Biological, Biophysical, and Biomedical Systems*, volume 5110, pp. 28-40, 2003. [\[pdf\]](#) [\[doi\]](#)
- [509] **Contributions of Yuri L. Klimontovich to the kinetic theory of nonideal plasmas** (Bonitz, M., Ebeling, W., and Romanovsky, Y. M.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 43, pp. 247-251, 2003. [\[pdf\]](#) [\[doi\]](#)
- [508] **Nonequilibrium statistical mechanics of swarms of driven particles** (Ebeling, W. and Erdmann, U.), *In Complexity*, Wiley Subscription Services, Inc., A Wiley Company, volume 8, pp. 23-30, 2003. [\[pdf\]](#) [\[doi\]](#)
- [507] **Thermodynamics of ionization and dissociation in hydrogen plasmas including fluctuations and magnetic fields** (Ebeling, W., Hache, H., and Spahn, M.), *In The European Physical Journal D-Atomic, Molecular, Optical and Plasma Physics*, EDP Sciences, Springer-Verlag, Società Italiana di Fisica, volume 23, pp. 265-272, 2003. [\[pdf\]](#) [\[doi\]](#)

2002

- [506] **Excitation of rotational modes in two-dimensional systems of driven Brownian particles** (Erdmann, U., Ebeling, W., and Anishchenko, V. S.), *In Physical Review E*, American Physical Society, volume 65, pp. 061106, 2002. [\[pdf\]](#) [\[doi\]](#)
- [505] **Dissipative Collisions of One-Dimensional Morse Clusters with Intermediate Energy Storage** (Dunkel, J., Ebeling, W., Schmelzer, J.W.P., and Röpke, G.), *In Joint Institute for Nuclear Research (Schmelzer, J. W. P., Röpke, G., Priezhev, V. B., eds.)*, 2002. [\[pdf\]](#)
- [504] **Rotational kinetics of absorbing dust grains in neutral gas** (Ignatov, A. M., Trigger, S. A., Maiorov, S. A., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 65, pp. 1-9, 2002. [\[pdf\]](#) [\[doi\]](#)
- [503] **Bifurcations of a semiclassical atom in a periodic field** (Pohl, T., Feudel, U., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 65, pp. 046228, 2002. [\[pdf\]](#) [\[doi\]](#)
- [502] **Ensemble-based control of evolutionary optimization algorithms** (Reimann, A. and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 65, pp. 046106, 2002. [\[pdf\]](#) [\[doi\]](#)
- [501] **Zwischen Ordnung und Chaos. Komplexität und Ästhetik aus physikalischer Sicht** (Ebeling, W. and Schweitzer, F.), *In Gegenworte, Zeitschrift für den Disput über Wissen. Berlin-Brandenburgische Akademie der Wissenschaften, Heft "Wissenschaft und Kunst*, pp. 46-49, 2002. [\[pdf\]](#)
- [500] **On Saha's equation for partially ionised plasmas and Onsager's bookkeeping rule** (Ebeling, W. and Hilbert, S.), *In The European Physical Journal D - Atomic, Molecular, Optical and Plasma Physics*, EDP Sciences, Springer-Verlag, Società Italiana di Fisica, volume 20, pp. 93-101, 2002. [\[pdf\]](#) [\[doi\]](#)
- [499] **Experimental behavior of a dissipative Toda-Rayleigh ring** (Del Río, E., Makarov, V. A., Velarde, M. G., and Ebeling, W.), *In Experimental Chaos*, volume 622, pp. 46-51, 2002. [\[pdf\]](#) [\[doi\]](#)
- [498] **Entropy of Sequences Generated by Nonlinear Processes: The Logistic Map** (Rateitschak, K., Freund, J., and Ebeling, W.), *Chapter in (Shiner, J. S., ed.)*, Springer Netherlands, pp. 11-26, 2002. [\[pdf\]](#) [\[doi\]](#)
- [497] **MEI, SOI and mid-range correlations in the onset of El Nino-Southern Oscillation** (Ortiz-

Tanchez, E., Ebeling, W., and Lanius, K.), *In Physica A: Statistical Mechanics and its Applications*, volume 310, pp. 509-520, 2002. [\[pdf\]](#) [\[doi\]](#)

- [496] **Entropy and complexity of finite sequences as fluctuating quantities** (Jiménez-Montaño, M. A., Ebeling, W., Pohl, T., and Rapp, P. E.), *In Biosystems*, volume 64, pp. 23 - 32, 2002. [\[pdf\]](#) [\[doi\]](#)
- [495] **SYNTAX: A computer program to compress a sequence and to estimate its information content** (Jiménez-Montaño, M. A., Ebeling, W., and Pöschel, T.), *In Condensed Matter*, pp. 1-11, 2002. [\[pdf\]](#)
- [494] **Brownian motion of absorbing dust grains** (Ignatov, A. M., Trigger, S. A., Maiorov, S. A., and Ebeling, W.), *In Dusty Plasmas in New Millennium*, volume 649, pp. 317-320, 2002. [\[pdf\]](#) [\[doi\]](#)
- [493] **Kinetics of dusty particulates with growing mass** (Ignatov, A. M., Trigger, S. A., Ebeling, W., and Schram, P. P. J. M.), *In Physics Letters A*, volume 293, pp. 141-145, 2002. [\[pdf\]](#) [\[doi\]](#)
- [492] **Rotational kinetics of absorbing dust grains in neutral gas.** (Ignatov, A. M., Trigger, S. A., Maiorov, S. A., and Ebeling, W.), *In Physical review. E, Statistical, nonlinear, and soft matter physics*, volume 65, pp. 046413-046413, 2002. [\[pdf\]](#) [\[doi\]](#)
- [491] **Nonequilibrium statistical mechanics of swarms of driven particles** (Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 314, pp. 92 - 96, 2002. [\[pdf\]](#) [\[doi\]](#)
- [490] **Quantum wave packet dynamics: Langevin equations for Hamiltonian systems imbedded into a heat bath** (Ebeling, W. and Pohl, T.), *In Quantum Limits to the Second Law*, volume 643, pp. 9-18, 2002. [\[pdf\]](#)
- [489] **Ensemble-based Control of Search Dynamics with Application to String Optimization** (Ebeling, W. and Reimann, A.), *In Zeitschrift für Physikalische Chemie-International Journal of Research in Physical Chemistry & Chemical Physics*, volume 216, pp. 65-75, 2002. [\[pdf\]](#) [\[doi\]](#)
- [488] **Poincare series and zeta function of the monodromy of a quasihomogeneous singularity** (Ebeling, W. and Gusein-Zade, S. M.), *In Mathematical Research Letters*, volume 9, pp. 509-513, 2002. [\[pdf\]](#)
- [487] **On Bjerrum's mass action law for electrolytes and Onsager's bookkeeping rule** (Ebeling, W., Hilbert, S., and Krienke, H.), *In Journal of Molecular Liquids*, volume 96-97, pp. 409 - 423, 2002. [\[pdf\]](#) [\[doi\]](#)
- [486] **Stochastic Dynamics of Reacting Biomolecules** (Ebeling, W., Romanovsky, Y. M., and Schimansky-Geier, L.), World Scientific Singapore, pp. 344, 2002. [\[pdf\]](#)
- [485] **Poincaré series and monodromy of a two-dimensional quasihomogeneous hypersurface singularity** (Ebeling, W.), *In Manuscripta Mathematica*, volume 107, pp. 271-282, 2002. [\[pdf\]](#) [\[doi\]](#)
- [484] **Entropy, Complexity, Predictability, and Data Analysis of Time Series and Letter Sequences** (Ebeling, W., Molgedey, L., Kurths, J., and Schwarz, U.), *In The Science of Disasters*, pp. 2-25, 2002. [\[pdf\]](#) [\[doi\]](#)
- [483] **Nonlinear Dynamics of Active Brownian Particles** (Ebeling, W.), *In Computational Statistical Physics*, pp. 141-151, 2002. [\[pdf\]](#) [\[doi\]](#)
- [482] **Entropies and predictability of nonlinear processes and time series** (Ebeling, W.), *In Computational Sciences-iccs 2002, Pt III, Proceedings*, volume 2331, pp. 1209-1217, 2002. [\[pdf\]](#)
- [481] **Entropies and Predictability of Nonlinear Processes and Time Series** (Ebeling, W.), *In P. M. A.*, pp. 1209-1217, 2002. [\[pdf\]](#)
- [480] **Coherent motions and clusters in a dissipative Morse ring chain** (Dunkel, J., Ebeling, W., Erdmann, U., and Makarov, V. A.), *In International Journal of Bifurcation and Chaos*, volume 12, pp. 2359-2377, 2002. [\[pdf\]](#) [\[doi\]](#)
- [479] **Nonlinear problems of molecular physics** (Chetverikov, A. P. and Ebeling, W.), *In Nonlinear Dynamics*, volume 10, pp. 3-21, 2002. [\[pdf\]](#)
- [478] **Technische Evolution aus der Sicht der Theorie der Selbstorganisation** (Ebeling, W. and Scharnhorst, A.), *Chapter in Wissenschaft und Innovation: Wissenschaftsforschung Jahrbuch 2001* (Parthey, H., Spur, G., eds.), Gesellschaft für Wissenschaftsforschung, pp. 59-73, 2002. [\[pdf\]](#)

- [477] **Entropy and local uncertainty of data from sensory neurons** (Steuer, R., Ebeling, W., Russell, D. F., Bahar, S., Neiman, A., and Moss, F.), *In Physical Review E*, American Physical Society,

volume 64, pp. 061911, 2001. [\[pdf\]](#) [\[doi\]](#)

- [476] **Evolution of induced axial magnetization in a two-component magnetized plasma** (Sarkar, S., Mukhopadhyay, P., Khan, M., Ortner, J., Steinberg, M., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 64, pp. 046401, 2001. [\[pdf\]](#) [\[doi\]](#)
- [475] **Dissipative Toda-Rayleigh lattice and its oscillatory modes** (Makarov, V. A., Del Río, E., Ebeling, W., and Velarde, M. G.), *In Physical Review E*, American Physical Society, volume 64, pp. 036601, 2001. [\[pdf\]](#) [\[doi\]](#)
- [474] **Statistical mechanics of canonical-dissipative systems and applications to swarm dynamics** (Schweitzer, F., Ebeling, W., and Tilch, B.), *In Physical Review E*, American Physical Society, volume 64, pp. 021110, 2001. [\[pdf\]](#) [\[doi\]](#)
- [473] **Isentropes and Hugoniot curves for dense hydrogen and deuterium** (Beule, D., Ebeling, W., Förster, A., Juranek, H., Redmer, R., and Röpke, G.), *In Physical Review E*, American Physical Society, volume 63, pp. 060202, 2001. [\[pdf\]](#) [\[doi\]](#)
- [472] **Self-oscillations in ring Toda chains with negative friction** (Ebeling, W., Landa, P. S., and Ushakov, V. G.), *In Physical Review E*, American Physical Society, volume 63, pp. 046601, 2001. [\[pdf\]](#) [\[doi\]](#)
- [471] **Stochastic multiresonance in a chaotic map with fractal basins of attraction** (Matyjaskiewicz, S., Krawiecki, A., Hołyst, J. A., Kacperski, K., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 63, pp. 026215, 2001. [\[pdf\]](#) [\[doi\]](#)
- [470] **Thermodynamics of hot dense H-plasmas: path integral Monte Carlo simulations and analytical approximations** (Filinov, V. S., Bonitz, M., Ebeling, W., and Fortov, V. E.), *In Plasma Physics and Controlled Fusion*, IOP Publishing, volume 43, pp. 743-759, 2001. [\[pdf\]](#)
- [469] **Dynamics of Economic and Technological Search Processes in Complex Adaptive Landscapes** (Ebeling, W., Karmeshu, and Scharnhorst, A.), *In Advances in Complex Systems*, volume 04, pp. 71-88, 2001. [\[pdf\]](#) [\[doi\]](#)
- [468] **Partition-based Entropies of Deterministic and Stochastic Maps** (Ebeling, W., Steuer, R., and Titchener, M. R.), *In Stochastics and Dynamics*, volume 01, pp. 45-61, 2001. [\[pdf\]](#) [\[doi\]](#)
- [467] **Deterministic chaos and information theory** (Titchener, M. R. and Ebeling, W.), *In DCC 2001: Data Compression Conference, Proceedings*, pp. 520, 2001. [\[pdf\]](#)
- [466] **Entropy and predictability of data from sensory neurons** (Steuer, R., Ebeling, W., Russell, D. F., Bahar, S., Neiman, A., and Moss, F.), American Physical Society, Annual March Meeting, volume 2, 2001. [\[pdf\]](#)
- [465] **Ionization equilibrium of a magnetized quantum plasma** (Steinberg, M., Ortner, J., and Ebeling, W.), *In Contributions to Plasma Physics*, volume 41, pp. 235-238, 2001. [\[pdf\]](#) [\[doi\]](#)
- [464] **Scaling features of texts, images and time series** (Pavlov, A. N., Ebeling, W., Molgedey, L., Ziganshin, A. R., and Anishchenko, V. S.), *In Physica A: Statistical Mechanics and its Applications*, volume 300, pp. 310 - 324, 2001. [\[pdf\]](#) [\[doi\]](#)
- [463] **Path integral simulations of the thermodynamic properties of quantum dense plasma** (Filinov, V. S., Bonitz, M., Kremp, D., Kraeft, W. D., Ebeling, W., Levashov, P., and Fortov, V. E.), *In Contributions to Plasma Physics*, volume 41, pp. 135-138, 2001. [\[pdf\]](#) [\[doi\]](#)
- [462] **Swarms of particle agents with harmonic interactions** (Ebeling, W. and Schweitzer, F.), *In Theory in Biosciences*, volume 120, pp. 207-224, 2001. [\[pdf\]](#)
- [461] **Active motion in systems with energy supply** (Ebeling, W. and Schweitzer, F.), *In Integrative Systems Approaches to Natural and Social Dynamics*, pp. 119-142, 2001. [\[pdf\]](#) [\[doi\]](#)
- [460] **Effective Potentials, Energies, and Pair-distribution Functions of Plasmas by Monte-Carlo Simulations** (Wagenknecht, H., Ebeling, W., and Förster, A.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag Berlin GmbH, volume 41, pp. 15-25, 2001. [\[pdf\]](#) [\[doi\]](#)
- [459] **Thermodynamics and transport in an active Morse ring chain** (Dunkel, J., Ebeling, W., and Erdmann, U.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, Springer-Verlag, volume 24, pp. 511-524, 2001. [\[pdf\]](#) [\[doi\]](#)
- [458] **Entropy and optimal partition for data analysis** (Steuer, R., Molgedey, L., Ebeling, W., and Jiménez-Montaño, M. A.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, volume 19, pp. 265-269, 2001. [\[pdf\]](#) [\[doi\]](#)

- [457] **Second virial coefficient for the Landau diamagnetism of a two-component plasma** (Steinberg, M., Ebeling, W., and Ortner, J.), *In Physical Review E*, American Physical Society, volume 61, pp. 2290–2299, 2000. [[pdf](#)] [[doi](#)]
- [456] **Brownian particles far from equilibrium** (Erdmann, U., Ebeling, W., Schimansky-Geier, L., and Schweitzer, F.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, volume 15, pp. 105-113, 2000. [[pdf](#)] [[doi](#)]
- [455] **Uphill motion of active brownian particles in piecewise linear potentials** (Schweitzer, F., Tilch, B., and Ebeling, W.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, volume 14, pp. 157-168, 2000. [[pdf](#)] [[doi](#)]
- [454] **Local order, entropy and predictability of financial time series** (Molgedey, L. and Ebeling, W.), *In The European Physical Journal B - Condensed Matter and Complex Systems*, EDP Sciences, Springer-Verlag, volume 15, pp. 733-737, 2000. [[pdf](#)] [[doi](#)]
- [453] **Ionization equilibrium and EOS of a low-temperature hydrogen plasma in weak magnetic fields** (Ebeling, W., Steinberg, M., and Ortner, J.), *In The European Physical Journal D - Atomic, Molecular, Optical and Plasma Physics*, Società Italiana di Fisica, volume 12, pp. 513-520, 2000. [[pdf](#)] [[doi](#)]
- [452] **Monte Carlo simulations of an electron gas and a mass-symmetrical plasma: Energies and pair-distribution functions** (Wagenknecht, H., Ebeling, W., and Forster, A.), *In The 1999 International Conference on Strongly Coupled Coulomb Systems*, EDP Sciences, volume 10, pp. 275-278, 2000. [[pdf](#)] [[doi](#)]
- [451] **The equation of state of a magnetized plasma** (Steinberg, M., Ebeling, W., and Ortner, J.), *In Journal de Physique IV*, volume 10, pp. 377-380, 2000. [[pdf](#)] [[doi](#)]
- [450] **Electric microfield distribution in two-component plasmas. Theory and simulations** (Ortner, J., Valuev, I. A., and Ebeling, W.), *In Contributions to Plasma Physics*, volume 40, pp. 555-568, 2000. [[pdf](#)] [[doi](#)]
- [449] **Intraday patterns and local predictability of high-frequency financial time series** (Molgedey, L. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 287, pp. 420 - 428, 2000. [[pdf](#)] [[doi](#)]
- [448] **Soliton-like waves on dissipative Toda lattices** (Makarov, V. A., Ebeling, W., and Velarde, M. G.), *In International Journal of Bifurcation and Chaos*, volume 10, pp. 1075-1089, 2000. [[pdf](#)] [[doi](#)]
- [447] **Distribution functions and excitation spectra of Toda systems at intermediate temperatures** (Jenssen, M. and Ebeling, W.), *In Physica D: Nonlinear Phenomena*, volume 141, pp. 117 - 132, 2000. [[pdf](#)] [[doi](#)]
- [446] **Nonlinear waves and moving clusters on rings** (Erdmann, U., Dunkel, J., and Ebeling, W.), *In Traffic and Granular Flow'99: Social, Traffic and Granular Dynamics*, pp. 239-244, 2000. [[pdf](#)] [[doi](#)]
- [445] **Nonlinear effects and energy flows in the semiclassical dynamics of atomic electrons in strong laser fields** (Ebeling, W., Pohl, T., and Holyst, J. A.), *In Laser Physics*, volume 10, pp. 1069-1077, 2000. [[pdf](#)]
- [444] **Strange duality and polar duality** (Ebeling, W.), *In Journal of the London Mathematical Society-Second Series*, volume 61, pp. 823-834, 2000. [[pdf](#)] [[doi](#)]
- [443] **Stochastic urn models of innovation and search dynamics** (Ebeling, W., Molgedey, L., and Reimann, A.), *In Physica A: Statistical Mechanics and its Applications*, volume 287, pp. 599 - 612, 2000. [[pdf](#)] [[doi](#)]
- [442] **Evolutionary models of innovation dynamics** (Ebeling, W. and Scharnhorst, A.), *In Traffic and Granular Flow'99: Social, Traffic and Granular Dynamics*, pp. 43-56, 2000. [[pdf](#)]
- [441] **Problems of a statistical ensemble theory for systems far from equilibrium** (Ebeling, W.), *Chapter in (Freund, J.A., Pöschel, T., eds.)*, pp. 390-399, 2000. [[pdf](#)] [[doi](#)]
- [440] **BOOK REVIEW: Physical Chemistry of Electrolyte Solutions. Modern Aspects. Topics in Physical Chemistry 5**, by J. M. G. Barthel, H. Krienke, and W. Kunz (Ebeling, W.), *In Journal of Solution Chemistry*, volume 29, pp. 199-200, 2000. [[pdf](#)] [[doi](#)]

- [439] **Complex motion of Brownian particles with energy supply** (Ebeling, W., Erdmann, U., Schimansky-Geier, L., and Schweitzer, F.), *In Stochastic and Chaotic Dynamics in the Lakes*, volume 502, pp. 183-190, 2000. [\[pdf\]](#)
- [438] **Statistical Thermodynamics and Nonlinear Excitations of Toda Systems** (Chetverikov, A. P., Jenssen, M., and Ebeling, W.), *In Ukr. Journal Physics*, volume 45, pp. 479-487, 2000. [\[pdf\]](#)
- [437] **Compression of hydrogen and deuterium plasma** (Beule, D., Ebeling, W., Förster, A., Juranek, H., Redmer, R., and Röpke, G.), *In Journal de Physique IV*, volume 10, pp. 295-298, 2000. [\[pdf\]](#) [\[doi\]](#)
- [436] **Nonlinear Dynamics and Fluctuations of Dissipative Toda Chains** (Ebeling, W., Erdmann, U., Dunkel, J., and Jenssen, M.), *In Journal of Statistical Physics*, Kluwer Academic Publishers-Plenum Publishers, volume 101, pp. 443-457, 2000. [\[pdf\]](#) [\[doi\]](#)

1999

- [435] **Equation of state for hydrogen below 10000 K: From the fluid to the plasma** (Beule, D., Ebeling, W., Förster, A., Juranek, H., Nagel, S., Redmer, R., and Röpke, G.), *In Phys. Rev. B*, American Physical Society, volume 59, pp. 14177-14181, 1999. [\[pdf\]](#) [\[doi\]](#)
- [434] **Complex Double Ionization of Helium by Superstrong Laser Radiation in the Presence of Plasma Microfields** (Romanovsky, Y. M., Ortner, J., Korobkin, V. V., and Ebeling, W.), *In Laser Physics*, INTERPERIODICA, volume 9, pp. 1228-1235, 1999. [\[pdf\]](#)
- [433] **Electric microfield distribution in two-component plasmas. Theory and simulations** (Ortner, J., Valuev, I. A., and Ebeling, W.), *In arXiv preprint physics/9912019*, 1999. [\[pdf\]](#)
- [432] **Directed motion of Brownian particles with internal energy depot** (Tilch, B., Schweitzer, F., and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 273, pp. 294 - 314, 1999. [\[pdf\]](#) [\[doi\]](#)
- [431] **Electroabsorption studies on quasi-three-dimensional and quasi-two-dimensional excitons in (Zn,Cd)Se/Zn(S,Se) structures** (Lilienkamp, T., Michler, P., Ebeling, W., Gutowski, J., Behringer, M., Fehrer, M., and Hommel, D.), *In Journal of applied Physics*, volume 86, pp. 4360-4364, 1999. [\[pdf\]](#) [\[doi\]](#)
- [430] **Komplexe Nichtlineare Prozesse: Sonderforschungsbereich 555** (Erdmann, U. and Ebeling, W.), *In Humboldt-Spektrum*, volume 3, 1999. [\[pdf\]](#)
- [429] **Evolutions- und Innovationsdynamik als Suchprozeß in komplexen adaptiven Landschaften** (Ebeling, W., Scharnhorst, A., Jiménez-Montaña, M. A., and Karmeshu), *In Komplexe Systeme und Nichtlineare Dynamik in Natur und Gesellschaft*, pp. 446-473, 1999. [\[pdf\]](#) [\[doi\]](#)
- [428] **Law and Prediction in the Light of Chaos Research** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie*, volume 208, pp. 290-291, 1999. [\[pdf\]](#) [\[doi\]](#)
- [427] **From Instability to Intelligence. Complexity and Predictability in Nonlinear Dynamics** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie*, volume 211, pp. 232-232, 1999. [\[pdf\]](#) [\[doi\]](#)
- [426] **Active Brownian particles with energy depots modeling animal mobility** (Ebeling, W., Schweitzer, F., and Tilch, B.), *In Biosystems*, volume 49, pp. 17 - 29, 1999. [\[pdf\]](#) [\[doi\]](#)
- [425] **Brownian particles with Toda interactions - a model of nonlinear molecular excitations** (Ebeling, W. and Jenssen, M.), *In Saratov Fall Meeting '98: Light Scattering Technologies for Mechanics, Biomedicine, and Material Science*, volume 3726, pp. 112-124, 1999. [\[pdf\]](#) [\[doi\]](#)
- [424] **Semiclassical Dynamics and Time Correlations in Two-Component Plasmas** (Ortner, J., Valuev, I. A., and Ebeling, W.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 311-321, 1999. [\[pdf\]](#) [\[doi\]](#)
- [423] **Quasiclassical Statistical Thermodynamics and New Padé Approximations for the Free Charges in Strongly-Coupled Plasma** (Ebeling, W., Stolzmann, W., Förster, A., and Kasch, M.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 287-306, 1999. [\[pdf\]](#) [\[doi\]](#)
- [422] **On the 75th Birthday of Yuri L. Klimontovich** (Ebeling, W. and Romanovsky, Y. M.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 285-286, 1999. [\[pdf\]](#) [\[doi\]](#)
- [421] **Quasiclassical Theory and Molecular Dynamics of Two-Component Nonideal Plasmas** (Ebeling, W., Norman, G. E., Valuev, A. A., and Valuev, I. A.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 61-64, 1999. [\[pdf\]](#) [\[doi\]](#)

- [420] **Electrical Conductivity in Dense Hydrogen Fluid and Metal Plasmas** (Redmer, R., Röpke, G., Beule, D., and Ebeling, W.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 25-28, 1999. [\[pdf\]](#) [\[doi\]](#)
- [419] **Hydrogen Equation of State and Plasma Phase Transition** (Beule, D., Ebeling, W., Förster, A., Juranek, H., Redmer, R., and Röpke, G.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 39, pp. 21-24, 1999. [\[pdf\]](#) [\[doi\]](#)
- [418] **Changes in Probability of Sequences, Exit Time Distribution and Dynamical Entropy in the Potsdam Temperature Record** (Werner, P. C., Gestengarbe, F. W., and Ebeling, W.), *In Theoretical and Applied Climatology*, Springer-Verlag, volume 62, pp. 125-132, 1999. [\[pdf\]](#) [\[doi\]](#)

1998

- [417] **Equation of state of a strongly magnetized hydrogen plasma** (Steinberg, M., Ortner, J., and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 58, pp. 3806–3816, 1998. [\[pdf\]](#) [\[doi\]](#)
- [416] **Complex Motion of Brownian Particles with Energy Depots** (Schweitzer, F., Ebeling, W., and Tilch, B.), *In Physical Review Letters*, American Physical Society, volume 80, pp. 5044–5047, 1998. [\[pdf\]](#) [\[doi\]](#)
- [415] **Symbolic dynamics, entropy and complexity of the Feigenbaum map at the accumulation point** (Ebeling, W. and Rateitschak, K.), *In Discrete Dynamics in Nature and Society*, Hindawi Publishing Corporation, volume 2, pp. 187–194, 1998. [\[pdf\]](#)
- [414] **Stochastic cluster dynamics of macromolecules** (Chikishev, A. Y., Netrebko, N., Romanovsky, Y. M., Ebeling, W., Schimansky-Geier, L., and Netrebko, A.), *In International Journal of Bifurcation and Chaos*, World Scientific, volume 8, pp. 921–926, 1998. [\[pdf\]](#)
- [413] **New Padé approximations for the free charges in two-component strongly coupled plasmas based on the Unsöld-Berlin-Montroll asymptotics** (Stolzmann, W. and Ebeling, W.), *In Physics Letters A*, volume 248, pp. 242 - 246, 1998. [\[pdf\]](#) [\[doi\]](#)
- [412] **Equilibrium properties of weakly coupled magnetized plasmas** (Steinberg, M., Ortner, J., and Ebeling, W.), *In Strongly Coupled Coulomb Systems*, pp. 473-477, 1998. [\[pdf\]](#) [\[doi\]](#)
- [411] **Microfields and fusion rates for dense plasmas** (Romanovsky, Y. M. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 252, pp. 488 - 504, 1998. [\[pdf\]](#) [\[doi\]](#)
- [410] **Investigation of the dynamic properties of the electron gas by quasi-classical simulations** (Ortner, J., Schautz, F., and Ebeling, W.), *In Strongly Coupled Coulomb Systems*, pp. 663-668, 1998. [\[pdf\]](#) [\[doi\]](#)
- [409] **Quantum confined Stark effect of II-VI heterostructures suitable as modulators in the blue-green spectral region** (Michler, P., Lilienkamp, T., Ebeling, W., Gutowski, J., Behringer, M., Fehrer, M., and Hommel, D.), *In Applied Physics Letters*, volume 72, pp. 3320-3322, 1998. [\[pdf\]](#) [\[doi\]](#)
- [408] **Electric-field-dependent absorption of ZnSe-based quantum wells: The transition from two-dimensional to three-dimensional behavior** (Merbach, D., Scholl, E., Ebeling, W., Michler, P., and Gutowski, J.), *In Physical Review B*, volume 58, pp. 10709-10720, 1998. [\[pdf\]](#) [\[doi\]](#)
- [407] **Highly charged ions in polyethylene capillary discharge plasma** (Forster, A., Beule, D., Conrads, H., and Ebeling, W.), *In Strongly Coupled Coulomb Systems*, pp. 623-627, 1998. [\[pdf\]](#) [\[doi\]](#)
- [406] **Microscopic models and simulations of local activation processes** (Ebeling, W., Podlipchuk, V. Y., and Sapeshtinsky, M. G.), *In International Journal of Bifurcation and Chaos*, volume 8, pp. 755-765, 1998. [\[pdf\]](#) [\[doi\]](#)
- [405] **Electroabsorption in low-dimensional and bulk-like Zn_{1-x}Cd_xSe** (Ebeling, W., Merbach, D., Behringer, M., Fehrer, M., Michler, P., Gutowski, J., Scholl, E., and Hommel, D.), *In Journal of Crystal Growth*, volume 184, pp. 706-709, 1998. [\[pdf\]](#) [\[doi\]](#)
- [404] **Entropy and predictability of information carriers** (Ebeling, W. and Frömmel, C.), *In Biosystems*, volume 46, pp. 47 - 55, 1998. [\[pdf\]](#) [\[doi\]](#)
- [403] **Quasi-classical theory and simulation of two-component plasmas** (Ebeling, W., Militzer, B., and Schautz, F.), *In Strongly Coupled Coulomb Systems*, pp. 433-437, 1998. [\[pdf\]](#) [\[doi\]](#)

- [402] **Complexity simplified for beginners** (Ebeling, W. and Jiménez-Montaño, M. A.), *In Physics World*, volume 12, pp. 38-39, 1998. [\[pdf\]](#) [\[doi\]](#)
- [401] **Komplexe Strukturen: Entropie und Information** (Ebeling, W., Freund, J., and Schweitzer, F.), Teubner-Verlag Stuttgart / Leipzig, 1998. [\[pdf\]](#)
- [400] **Highly Ionised Carbon in Capillary Discharge Plasma** (Förster, A., Beule, D., Conrads, H., and Ebeling, W.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 38, pp. 655-660, 1998. [\[pdf\]](#) [\[doi\]](#)
- [399] **Adiabatic equation of state and ionization equilibrium in strongly coupled plasma** (Beule, D., Ebeling, W., and Forster, A.), *In Strongly Coupled Coulomb Systems*, pp. 629-632, 1998. [\[pdf\]](#) [\[doi\]](#)
- [398] **Molecular dynamics simulations of nonideal plasmas - comparison of various effective potentials. Proceedings of the workshops on nonequilibrium physics at short time scale.** (Valuev, I. A., Ebeling, W., and Ortner, J.), *In "Proceedings of the I.-V. workshop on Nonequilibrium Physics at Short Time Scales" (Morawetz, K., Lipavský, P., Špička, V., eds.)*, Rostock University Press, pp. 47-50, 1998. [\[pdf\]](#)
- [397] **Quasiclassical theory and simulations of strongly coupled plasmas** (Ebeling, W. and Ortner, J.), *In Physica Scripta*, volume 1998, pp. 93-98, 1998. [\[pdf\]](#)

1997

- [396] **Many particle simulations of the quantum electron gas using momentum-dependent potentials** (Ebeling, W. and Schautz, F.), *In Physical Review E*, American Physical Society, volume 56, pp. 3498-3507, 1997. [\[pdf\]](#) [\[doi\]](#)
- [395] **Markov processes, dynamic entropies and the statistical prediction of mesoscale weather regimes** (Nicolis, C., Ebeling, W., and Baraldi, C.), *In Tellus A*, Munksgaard International Publishers, volume 49, pp. 108-118, 1997. [\[pdf\]](#) [\[doi\]](#)
- [394] **Optimization of Road Networks Using Evolutionary Strategies** (Schweitzer, F., Ebeling, W., Rosé, H., and Weiss, O.), *In Evolutionary Computation*, volume 5, pp. 419-438, 1997. [\[pdf\]](#) [\[doi\]](#)
- [393] **Quasiclassical molecular-dynamics simulations of the electron gas: Dynamic properties** (Ortner, J., Schautz, F., and Ebeling, W.), *In Physical Review E*, volume 56, pp. 4665-4670, 1997. [\[pdf\]](#) [\[doi\]](#)
- [392] **Synchronization in ensembles of stochastic resonators** (Neiman, A., Moss, F., Schimansky-Geier, L., and Ebeling, W.), *In Applied Nonlinear Dynamics And Stochastic Systems Near The Millenium*, pp. 151-156, 1997. [\[pdf\]](#)
- [391] **Physikalische Grundlagen und Evolution der Information** (Ebeling, W.), *Chapter in* , Pohlmann, L. and Krug, H. and Niedersen, U., volume 8, pp. 81-95, 1997. [\[pdf\]](#)
- [390] **Entropy, information and predictability of evolutionary systems** (Ebeling, W.), *In World futures*, volume 50, pp. 467-481, 1997. [\[pdf\]](#) [\[doi\]](#)
- [389] **Molecular dynamics simulation of the energy distributions of molecules in liquid solutions** (Ebeling, W., Valuev, A. A., and Podlipchuk, V. Y.), *In Journal of Molecular Liquids*, volume 73-4, pp. 445-452, 1997. [\[pdf\]](#) [\[doi\]](#)
- [388] **Prediction and entropy of nonlinear dynamical systems and symbolic sequences with LRO** (Ebeling, W.), *In Physica D: Nonlinear Phenomena*, volume 109, pp. 42 - 52, 1997. [\[pdf\]](#) [\[doi\]](#)
- [387] **Dynamics of innovations in technology and science based on individual development** (Ebeling, W., Jiménez-Montaño, M. A., and Karmeshu), *Chapter in (Schweitzer, F., ed.)*, Gordon and Breach Science Publishers, pp. 407-414, 1997. [\[pdf\]](#)
- [386] **Quantum molecular dynamics of partially ionized plasmas** (Ebeling, W. and Militzer, B.), *In Physics Letters A*, volume 226, pp. 298 - 304, 1997. [\[pdf\]](#) [\[doi\]](#)
- [385] **Entropy and Compressibility of Symbol Sequences** (Ebeling, W., Pöschel, T., and Neiman, A.), *In Physical Computing*, pp. 1-5, 1997. [\[pdf\]](#)
- [384] **Dynamic entropies and predictability of evolutionary processes** (Ebeling, W.), *In "Nonlinear Dynamics Chaotic and Complex Systems: Proceedings of an International Conference held in Zakopane" (Infeld, E., Zalazny, R., Galkowski, A., eds.)*, Cambridge University Press, pp. 224-236, 1997. [\[pdf\]](#)
- [383] **Stochastic cluster dynamics of macromolecules** (Chikishev, A. Y., Ebeling, W., Netrebko, A.,

Netrebko, N., Romanovsky, Y. M., and Schimansky-Geier, L.), *In International Workshop on Nonlinear Dynamics and Structures in Biology and Medicine: Optical and Laser Technologies*, volume 3053, pp. 54-70, 1997. [\[pdf\]](#) [\[doi\]](#)

- [382] **Adiabatic equation of state and ionization equilibrium of dense plasma** (Beule, D., Ebeling, W., and Förster, A.), *In Physica A: Statistical Mechanics and its Applications*, volume 241, pp. 719 - 728, 1997. [\[pdf\]](#) [\[doi\]](#)
- [381] **Unified description of evolutionary strategies over continuous parameter spaces** (Asselmeyer, T. and Ebeling, W.), *In Biosystems*, volume 41, pp. 167-178, 1997. [\[pdf\]](#) [\[doi\]](#)
- [380] **Evolutionary strategies of optimization** (Asselmeyer, T., Ebeling, W., and Rosé, H.), *In Physical Review E*, American Physical Society, volume 56, pp. 1171-1180, 1997. [\[pdf\]](#) [\[doi\]](#)

1996

- [379] **Parallel Problem Solving from Nature - PPSN IV**, (Voigt, H.-M., Ebeling, W., Rechenberg, I., Schwefel, H.-P., eds.), Springer-Verlag, volume 1141, 1996. [\[pdf\]](#)
- [378] **Dynamical Entropies Applied to Stochastic Resonance** (Neiman, A., Shulgin, B., Anishchenko, V. S., Ebeling, W., Schimansky-Geier, L., and Freund, J.), *In Phys. Rev. Lett.*, American Physical Society, volume 76, pp. 4299–4302, 1996. [\[pdf\]](#) [\[doi\]](#)
- [377] **Thermodynamic and kinetic properties of hot nonideal plasmas** (Ebeling, W., Förster, A., Hess, H., and Romanovsky, Y. M.), *In Plasma Physics and Controlled Fusion*, IOP Publishing, volume 38, pp. A31-A47, 1996. [\[pdf\]](#)
- [376] **Network optimization using evolutionary strategies** (Schweitzer, F., Ebeling, W., Rosé, H., and Weiss, O.), *In Parallel Problem Solving from Nature — PPSN IV*, pp. 940-949, 1996. [\[pdf\]](#) [\[doi\]](#)
- [375] **Nonlinear dynamical model for texts** (Rateitschak, K., Ebeling, W., and Freund, J.), *In Europhysics Letters*, volume 35, pp. 401-406, 1996. [\[pdf\]](#) [\[doi\]](#)
- [374] **Entropy of Sequences Generated by Nonlinear Processes: The Logistic Map** (Rateitschak, K., Freund, J., and Ebeling, W.), *Chapter in (Shiner, J. S., ed.)*, Kluwer Academic Publishers, volume 18, pp. 11–26, 1996. [\[pdf\]](#)
- [373] **Dynamical entropies applied to stochastic resonance** (Neiman, A., Shulgin, B., Anishchenko, V. S., Ebeling, W., Schimansky-Geier, L., and Freund, J.), *In Physical Review Letters*, volume 76, pp. 4299-4302, 1996. [\[pdf\]](#) [\[doi\]](#)
- [372] **Coulombic phase transitions in symmetrical quantum systems** (Lehmann, H. and Ebeling, W.), *In Physical Review E*, American Physical Society, volume 54, pp. 2451-2457, 1996. [\[pdf\]](#) [\[doi\]](#)
- [371] **Self-similar sequences and universal scaling of dynamical entropies** (Freund, J., Ebeling, W., and Rateitschak, K.), *In Physical Review E*, volume 54, pp. 5561-5566, 1996. [\[pdf\]](#) [\[doi\]](#)
- [370] **Entropy and extended memory in discrete chaotic dynamics** (Ebeling, W., Freund, J., and Rateitschak, K.), *In International Journal of Bifurcation and Chaos*, volume 6, pp. 611-625, 1996. [\[pdf\]](#) [\[doi\]](#)
- [369] **Entropy, information and predictability of evolutionary systems** (Ebeling, W.), *In World Futures: The Journal of New Paradigm Research*, volume 50, pp. 467-481, 1996. [\[pdf\]](#) [\[doi\]](#)
- [368] **Quantum wave-packets simulation of ionization processes in dense plasmas** (Ebeling, W., Förster, A., and Podlipchuk, V. Y.), *In Physics Letters A*, volume 218, pp. 297 - 303, 1996. [\[pdf\]](#) [\[doi\]](#)
- [367] **Lars Onsager's contributions to electrolyte theory** (Ebeling, W. and Justice, J. C.), *In World Scientific Series in 20th Century Physics*, volume 17, pp. 243-250, 1996. [\[pdf\]](#)
- [366] **Molecular dynamics of time correlations in solutions** (Ebeling, W. and Podlipchuk, V. Y.), *In Zeitschrift für physikalische Chemie - International Journal of Research in Physical Chemistry & Chemical Physics*, volume 193, pp. 207-212, 1996. [\[pdf\]](#) [\[doi\]](#)
- [365] **Parallel Problem Solving from Nature - PPSN IV** (Ebeling, W., Rechenberg, I., Schwefel, H. P., and Voigt, H. M.), Springer Berlin Heidelberg, 1996. [\[pdf\]](#) [\[doi\]](#)
- [364] **Nonlinear stochastic effects of substitution — an evolutionary approach** (Bruckner, E., Ebeling, W., Jiménez-Montaña, M. A., and Scharnhorst, A.), *In Journal of Evolutionary Economics*, Springer-Verlag, volume 6, pp. 1-30, 1996. [\[pdf\]](#) [\[doi\]](#)
- [363] **Nonlinear stochastic effects of substitution — an evolutionary approach** (Bruckner, E., Ebeling, W., Montaña, M.A.J., and Scharnhorst, A.), *In Journal of Evolutionary Economics*,

Springer-Verlag, volume 6, pp. 1-30, 1996. [\[pdf\]](#) [\[doi\]](#)

- [362] **Stochastic kinetics of electron transitions in nonideal plasmas** (Beule, D., Ebeling, W., and Förster, A.), *In Physica B*, volume 228, pp. 140-143, 1996. [\[pdf\]](#) [\[doi\]](#)
- [361] **Smoothing representation of fitness landscapes - The genotype-phenotype map of evolution** (Asselmeyer, T., Ebeling, W., and Rosé, H.), *In Biosystems*, volume 39, pp. 63-76, 1996. [\[pdf\]](#) [\[doi\]](#)
- [360] **The Density of States - A Measure of the Difficulty of Optimisation Problems** (Asselmeyer, T., Ebeling, W., and Rosé, H.), *In Parallel Problem Solving from Nature — PPSN IV*, pp. 208-217, 1996. [\[pdf\]](#) [\[doi\]](#)
- [359] **Mixing of Thermodynamical and Biological Strategies in Optimization** (Asselmeyer, T. and Ebeling, W.), *Chapter in (Schweitzer, F., ed.)*, GORDON AND BREACH SCIENCE PUBLISHERS, pp. 153-163, 1996. [\[pdf\]](#)
- [358] **The modular structure of informational sequences** (Schmitt, A. O., Ebeling, W., and Herzel, H.), *In Biosystems*, volume 37, pp. 199-210, 1996. [\[pdf\]](#) [\[doi\]](#)

1995

- [357] **Entropy, transinformation and word distribution of information-carrying sequences** (Ebeling, W., Pöschel, T., and Albrecht, K. F.), *In International Journal of Bifurcation and Chaos*, World Scientific, volume 5, pp. 51–61, 1995. [\[pdf\]](#)
- [356] **Guessing Probability Distributions From Small Samples** (Pöschel, T., Ebeling, W., and Rosé, H.), *In Journal of Statistical Physics*, volume 80, pp. 1443–1452, 1995. [\[pdf\]](#)
- [355] **Statistical analysis of DNA sequences** (Herzel, H., Ebeling, W., Grosse, V., and Schmitt, A. O.), *Chapter in*, Wiley-VCH Verlag, pp. 29-45, 1995. [\[pdf\]](#) [\[doi\]](#)
- [354] **Dynamic entropies, long-range correlations, and fluctuations in complex linear structures** (Ebeling, W., Neiman, A., and Pöschel, T.), *In Coherent Approaches to Fluctuations-Proceedings of the Hayashibara Forum '95*, pp. 59-64, 1995. [\[pdf\]](#)
- [353] **Complex regimes in simple methods of molecular dynamics of enzymes** (Ebeling, W., Romanovsky, Y. M., Khurgin, Y., Netrebko, A., Netrebko, N., and Shidlovskaya, E.), *In 5th International Conference on Laser Applications in Life Science*, volume 2370, pp. 434-447, 1995. [\[pdf\]](#) [\[doi\]](#)
- [352] **Endoreversible Thermodynamics of Solar Energy Conversion** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie*, pp. 313-313, 1995. [\[pdf\]](#) [\[doi\]](#)
- [351] **Long-range correlations between letters and sentences in texts** (Ebeling, W. and Neiman, A.), *In Physica A: Statistical Mechanics and its Applications*, volume 215, pp. 233 - 241, 1995. [\[pdf\]](#) [\[doi\]](#)
- [350] **Molecular dynamics simulation of the activation of soft molecules solved in condensed media** (Ebeling, W., Podlipchuk, V. Y., and Valuev, A. A.), *In Physica A: Statistical Mechanics and its Applications*, volume 217, pp. 22 - 37, 1995. [\[pdf\]](#) [\[doi\]](#)
- [349] **Thermodynamics, kinetics, and phase transitions of dense plasmas** (Ebeling, W. and Förster, A.), *In Elementary Processes in Dense Plasmas (Ichimaru, S., Ogata, S., eds.)*, Addison-Wesley, pp. 165-180, 1995. [\[pdf\]](#)
- [348] **Correlation Functions And Thermodynamics Of Partially Ionized Nonideal Plasmas** (Ebeling, W., Beule, D., Förster, A., and Kasch, M.), *In Proceedings of the International Conference on the Physics of Strongly Coupled Plasma in Binz*, pp. 1-10, 1995. [\[pdf\]](#)
- [347] **Entropy, Transinformation and Word Distribution of Information-Carrying Sequences** (Ebeling, W., Pöschel, T., and Albrecht, K. F.), *In Int. J. Bifurcation and Chaos*, volume 5, pp. 51-61, 1995. [\[pdf\]](#)
- [346] **Analytic Investigations of Random Search Strategies for Parameter Optimization** (Asselmeyer, T. and Ebeling, W.), *In Physical Review E*, American Physical Society, pp. 1-9, 1995. [\[pdf\]](#)

1994

- [345] **Entropies of biosequences: The role of repeats** (Herzel, H., Ebeling, W., and Schmitt, A. O.), *In Physical Review E*, American Physical Society, volume 50, pp. 5061–5071, 1994. [\[pdf\]](#) [\[doi\]](#)
- [344] **Evolutionary strategies for solving frustrated problems** (Ebeling, W., Rosé, H., and

- Schuchhardt, J.), *In Evolutionary Computation, 1994. IEEE World Congress on Computational Intelligence., Proceedings of the First IEEE Conference on*, pp. 79-81 vol.1, 1994. [[pdf](#)] [[doi](#)]
- [343] **Self-Organization, Valuation and Optimization** (Ebeling, W.), *Chapter in On Self-Organization (Mishra, R., Maaß, D., Zwierlein, E., eds.)*, Springer Verlag, volume 61, 1994. [[pdf](#)] [[doi](#)]
- [342] **An elementary model for directed active motion** (Steuernagel, O., Ebeling, W., and Calenbuhr, V.), *In Chaos, Solitons & Fractals*, volume 4, pp. 1917 - 1930, 1994. [[pdf](#)] [[doi](#)]
- [341] **Finite sample effects in sequence analysis** (Herzel, H., Schmitt, A. O., and Ebeling, W.), *In Chaos, Solitons & Fractals*, volume 4, pp. 97 - 113, 1994. [[pdf](#)] [[doi](#)]
- [340] **Chaos and Order in Symbolic Sequences-Preface** (Ebeling, W.), *In Chaos, Solitons & Fractals*, volume 4, pp. 3-3, 1994. [[pdf](#)] [[doi](#)]
- [339] **HOMOLOGY HOPF SURFACES** (Ebeling, W. and Okonek, C.), *In COMPOSITIO MATHEMATICA*, volume 91, pp. 277-304, 1994. [[pdf](#)]
- [338] **Chaos und Kosmos: Prinzipien der Evolution** (Ebeling, W. and Feistel, R.), Spektrum Akademischer Verlag Heidelberg, Berlin, Oxford, 1994. [[pdf](#)]
- [337] **Entropy, Transinformation and Word Distribution of Information-Carrying Sequences** (Ebeling, W.), *In Lecture Notes of the Toshiba Keio Lecture on July 1, 1994*, 1994. [[pdf](#)]
- [336] **Hyperselection and Innovation Described by a Stochastic Model of Technological Evolution** (Bruckner, E., Ebeling, W., Jiménez-Montaña, M. A., and Scharnhorst, A.), *In Evolutionary Economics and Chaos Theory*, pp. 70-90, 1994. [[pdf](#)]
- [335] **Power law distributions of spectral density and higher order entropies** (Anishchenko, V. S., Ebeling, W., and Neiman, A.), *In Chaos, Solitons & Fractals*, volume 4, pp. 69 - 81, 1994. [[pdf](#)] [[doi](#)]
- [334] **Entropy and Long-Range Correlations in Literary English** (Ebeling, W. and Pöschel, T.), *In EPL (Europhysics Letters)*, volume 26, pp. 241, 1994. [[pdf](#)]

1993

- [333] **A New Method to Calculate Higher-Order Entropies from Finite Samples.** (Schmitt, A. O., Herzel, H., and Ebeling, W.), *In Epl*, volume 23, pp. 303-309, 1993. [[pdf](#)] [[doi](#)]
- [332] **Ionization and Recombination Coefficients of Excited-States in Nonideal Hydrogen Plasmas** (Leonhardt, U. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 192, pp. 249-261, 1993. [[pdf](#)] [[doi](#)]
- [331] **Entropy and information in processes of self-organization: uncertainty and predictability** (Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 194, pp. 563 - 575, 1993. [[pdf](#)] [[doi](#)]
- [330] **Chaos, Entropie und Sequenzanalyse** (Ebeling, W.), *In Informatik in den Biowissenschaften*, pp. 51-66, 1993. [[pdf](#)] [[doi](#)]
- [329] **Activation by Nonlinear Oscillations and Solitonic Excitations** (Ebeling, W. and Janssen, M.), *In Journal of Statistical Physics*, volume 70, pp. 49-60, 1993. [[pdf](#)] [[doi](#)]
- [328] **Chaos, Order, and Information in the Evolution of Strings** (Ebeling, W.), *In Applied Mathematics and Computation*, volume 56, pp. 131-151, 1993. [[pdf](#)] [[doi](#)]
- [327] **Selbstorganisation und Entropie in Ökologischen und Ökonomischen Prozessen** (Ebeling, W.), *Chapter in Zwischen Entropiewachstum und Selbstorganisation - Perspektiven einer ökologischen Ökonomie*, pp. 1-12, 1993. [[pdf](#)]
- [326] **Technological innovations-A Self-Organization Approach** (Bruckner, E., Ebeling, W., Jiménez-Montaña, M. A., and Scharnhorst, A.), pp. 1-78, 1993. [[pdf](#)]

1992

- [325] **Equation of State and the Phase-Diagram of Dense Fluid Helium in the Region of Partial Ionization** (Forster, A., Kahlbaum, T., and Ebeling, W.), *In Laser and Particle Beams*, volume 10, pp. 253-262, 1992. [[pdf](#)] [[doi](#)]
- [324] **Mean Spherical Approximation for the Thermodynamics of Partially Ionized and Strongly Coupled Plasmas** (Förster, A. and Ebeling, W.), *Chapter in*, Teubner-Verlag Stuttgart / Leipzig, volume 26, pp. 95-104, 1992. [[pdf](#)] [[doi](#)]
- [323] **Theory and Microscopic Simulation of Activation Processes** (Ebeling, W. and Janssen, M.), *In*

- Physica A: Statistical Mechanics and its Applications*, volume 188, pp. 350-356, 1992. [\[pdf\]](#) [\[doi\]](#)
- [322] **Random Effects in Innovation Processes** (Ebeling, W.), In *JOURNAL OF SCIENTIFIC & INDUSTRIAL RESEARCH*, volume 51, pp. 209-215, 1992.
- [321] **Bound states and ionization kinetics in dense plasmas** (Ebeling, W., Leike, I., and Leonhardt, U.), In *Atomic processes in plasmas*, volume 257, pp. 97-107, 1992. [\[pdf\]](#) [\[doi\]](#)
- [320] **A Stochastic-Model of Technological Evolution** (Ebeling, W., Jiménez-Montaña, M. A., Bruckner, E., and Scharnhorst, A.), *Chapter in Economic Evolution and Demographic Change*, volume 395, pp. 75-95, 1992. [\[pdf\]](#) [\[doi\]](#)
- [319] **Word frequency and entropy of symbolic sequences: a dynamical perspective** (Ebeling, W. and Nicolis, G.), In *Chaos, Solitons & Fractals*, volume 2, pp. 635 - 650, 1992. [\[pdf\]](#) [\[doi\]](#)
- [318] **Statistical Thermodynamics of Bound States and Phase Transitions in Nonideal Plasmas** (Ebeling, W.), *Chapter in* , Teubner-Verlag Stuttgart / Leipzig, pp. 49-57, 1992. [\[pdf\]](#) [\[doi\]](#)
- [317] **The Optimization of a Class of Functionals based on Developmental Strategies** (Ebeling, W.), In *Parallel Problem Solving from Nature - PPSN II*, Springer-Verlag Berlin Heidelberg, pp. 463-468, 1992. [\[pdf\]](#)
- [316] **Models of Selforganization in Complex Systems, MOSES** (Ebeling, W., Peschel, M., and Weidlich, W.), Akademie-Verlag Berlin, 1992. [\[pdf\]](#)
- [315] **Book review: Chemical Evolution. Origin of elements, molecules and living systems.** (Ebeling, W.), In *Angewandte Chemie International*, volume 31, pp. 1533-1534, 1992. [\[pdf\]](#)
- [314] **Theory of Self-Organization and Evolution - The Role of Entropy, Value and Information** (Ebeling, W. and Feistel, R.), In *Journal of Non-Equilibrium Thermodynamics*, volume 17, pp. 303-332, 1992. [\[pdf\]](#) [\[doi\]](#)
- [313] **Dynamics of competition and valuation in non-physical systems** (Ebeling, W.), In *Computational systems analysis*, pp. 15-33, 1992. [\[pdf\]](#)
- [312] **On the Relation Between Various Entropy Concepts and the Valoric Interpretation** (Ebeling, W.), In *Physica A: Statistical Mechanics and its Applications*, volume 182, pp. 108-120, 1992. [\[pdf\]](#) [\[doi\]](#)
- [311] **Statistical Physics and Thermodynamics of Nonlinear Nonequilibrium Systems**, (Ebeling, W., Muschik, W., eds.), World Scientific, 1992. [\[pdf\]](#)
- [310] **Volkenstein, M.V. Evolutionary Thinking and the Structure of Fitness Landscapes** (Conrad, M. and Ebeling, W.), In *Biosystems*, volume 27, pp. 125-128, 1992. [\[pdf\]](#) [\[doi\]](#)

1991

- [309] **Mutations and Selection in Evolutionary Processes** (Ebeling, W.), *Chapter in Complexity, Chaos, and Biological Evolution* (Mosekilde, E., Mosekilde L., eds.), volume 270, pp. 195-208, 1991. [\[pdf\]](#)
- [308] **Modelle der Selbstorganisation in ökologischen und ökonomischen Systemen** (Ebeling, W.), *Chapter in Die ökologische Herausforderung für die ökonomische Theorie* (Beckenbach, F., ed.), Metropolis-Verlag, pp. 341-347, 1991. [\[pdf\]](#)
- [307] **Self-Organization of Nonlinear Networks and Applications to Information Processing** (Pöschel, T., Ebeling, W., and Boseniuk, T.), *Chapter in* (Holden, A. V., Kryukov, V. I., eds.), Manchester University Press, volume 2, pp. 615-627, 1991. [\[pdf\]](#)
- [306] **Wave-Function Properties and Shifted Energy-Levels of Bound-States in a Plasma** (Lehmann, H. and Ebeling, W.), In *Zeitschrift für Naturforschung A*, volume 46, pp. 583-589, 1991. [\[pdf\]](#) [\[doi\]](#)
- [305] **Soliton-Assisted Transitions** (Jensen, M. and Ebeling, W.), In , pp. 65-82, 1991. [\[pdf\]](#)
- [304] **Thermodynamics in Berlin** (Hoffmann, D. and Ebeling, W.), In , pp. 262-275, 1991. [\[pdf\]](#)
- [303] **Plasma Phase Transitions in Dense Fluid Helium** (Förster, A., Kahlbaum, T., and Ebeling, W.), *Chapter in XX International Conference on Phenomena in Ionized Gases, Il Ciocco, 8th-12th July 1991: Contributed Papers 3* (Palleschi, V., Vaselli, M., eds.), Institute of atomic and molecular physics, volume 2, pp. 385-386, 1991.
- [302] **Thermodynamic properties and the plasma phase transition of dense helium plasma** (Forster, A., Kahlbaum, T., and Ebeling, W.), In *High Pressure Research*, volume 7, pp. 375-377, 1991. [\[pdf\]](#) [\[doi\]](#)

- [301] **Zeit und Komplexität. Die kreativen Potenzen des Chaos.** (Ebeling, W.), *Chapter in Tohowabohu Chaos und Schöpfung Essays* (Meier, K., Strech, K., eds.), Akademie-Verlag, pp. 65-82, 1991. [\[pdf\]](#)
- [300] **Kinetics of ionization-recombination processes in nonideal hydrogen plasmas** (Ebeling, W. and Leike, I.), *In Physica A: Statistical Mechanics and its Applications*, volume 170, pp. 682-688, 1991. [\[pdf\]](#) [\[doi\]](#)
- [299] **Entropie und Evolution der biologischen Information** (Ebeling, W.), *Chapter in Symposium Informationsbildung in Biosystemen : 29. Mai 1991*, Hirschelmann, A., pp. 67-82, 1991. [\[pdf\]](#)
- [298] **Soliton - Assisted Activation Processes** (Ebeling, W. and Jenssen, M.), *In Berichte der Bunsengesellschaft für physikalische Chemie*, volume 95, pp. 356-362, 1991. [\[pdf\]](#) [\[doi\]](#)
- [297] **Stochastic-Models of Competition Processes in Nonphysical Systems** (Ebeling, W.), *In SYSTEMS ANALYSIS, MODELLING, SIMULATION*, volume 8, pp. 3-17, 1991. [\[pdf\]](#)
- [296] **Thermophysical Properties of Hot Dense Plasmas** (Ebeling, W., Förster, A., Fortov, V. E., Gryaznov, V. K., and Polishchuk, A. Y.), (Ebeling, W., Meiling, W., Uhlmann, A., Wilhelmi, B., eds.), Teubner-Verlag Stuttgart / Leipzig, volume 25, 1991. [\[pdf\]](#)
- [295] **Entropy of Symbolic Sequences - The Role of Correlations** (Ebeling, W. and Nicolis, G.), *In Epl*, volume 14, pp. 191-196, 1991. [\[pdf\]](#) [\[doi\]](#)
- [294] **Dynamics of Fronts, Nuclei and Patterns in 2D Random-Media** (Ebeling, W., Engel, A., Schimansky-Geier, L., and Zülicke, C.), *In Physica D: Nonlinear Phenomena*, volume 49, pp. 170-176, 1991. [\[pdf\]](#) [\[doi\]](#)
- [293] **Chaos, Ordnung und Entropie** (Ebeling, W.), *In academie spectrum*, volume 7, pp. 15-22, 1991. [\[pdf\]](#)
- [292] **The Berlin School of Thermodynamics founded by Helmholtz and Clausius** (Ebeling, W. and Hoffman, D.), *In European Journal of Physics*, pp. 1-9, 1991. [\[pdf\]](#)
- [291] **Boltzmann-Strategies, Darwin-Strategies and Haeckel-Strategies in Optimization Problems** (Boseniuk, T. and Ebeling, W.), *In International Conference on Parallel Problem Solving from Nature - PPSN I*, volume 496, pp. 430-444, 1991. [\[pdf\]](#) [\[doi\]](#)

1990

- [290] **Effects of strong noise on attractors of dynamical systems** (Anishchenko, V. S. and Ebeling, W.), *In Zeitschrift für Physik B Condensed Matter*, Springer-Verlag, volume 81, pp. 445-450, 1990. [\[pdf\]](#) [\[doi\]](#)
- [289] **A SEMIPARAMETRIC APPROACH TO PHYSIOLOGICAL FLOW MODELS** (Sheiner, L. B., Verotta, D., Ebeling, W., and Stanski, D. R.), *In EUROPEAN JOURNAL OF PHARMACOLOGY*, volume 183, pp. 611-611, 1990. [\[pdf\]](#) [\[doi\]](#)
- [288] **Energy-Gap and Line Shifts for H-Like Ions in Dense-Plasmas** (Kilimann, K. and Ebeling, W.), *In Zeitschrift für Naturforschung A*, volume 45, pp. 613-617, 1990. [\[pdf\]](#) [\[doi\]](#)
- [287] **Effects of Noise and Inhomogeneous Attractors in Biochemical Systems** (Herzel, H. and Ebeling, W.), *In Biomedica Biochimica Acta*, volume 49, pp. 941-949, 1990. [\[pdf\]](#)
- [286] **Parallel search in evolution and optimization** (Ebeling, W.), *Chapter in Evolution and Optimization '89* (Voigt, H.-M., Muehlenbein, H., Schwefel, H.-P., eds.), Akademie-Verlag Berlin, pp. 46-56, 1990. [\[pdf\]](#)
- [285] **Frequency-Dependent Conductance and Dielectric Permittivity** (Ebeling, W. and Justice, J. C.), *In Journal of Solution Chemistry*, volume 19, pp. 945-955, 1990. [\[pdf\]](#) [\[doi\]](#)
- [284] **Erneuerung als Grundmechanismus der Evolution** (Ebeling, W.), *In Deutsche Zeitschrift für Philosophie*, volume 38, pp. 671-675, 1990. [\[pdf\]](#)
- [283] **AN EXAMPLE OF 2 HOMEOMORPHIC, NONDIFFEOMORPHIC COMPLETE INTERSECTION SURFACES** (Ebeling, W.), *In INVENTIONES MATHEMATICAE*, volume 99, pp. 651-654, 1990. [\[pdf\]](#) [\[doi\]](#)
- [282] **Selbstorganisation und Erneuerung in der Evolution gesellschaftlicher Systeme** (Ebeling, W.), *In Initial*, volume 4, pp. 436-440, 1990. [\[pdf\]](#)
- [281] **Equation of State and Ionization of Dense-Plasmas** (Ebeling, W.), *In Inside the Sun*, volume 159, pp. 43-58, 1990. [\[pdf\]](#) [\[doi\]](#)

- [280] **Entropy and the Evolution of Biological Information** (Ebeling, W. and Volkenstein, M. V.), In *Physica A: Statistical Mechanics and its Applications*, volume 163, pp. 398-402, 1990. [\[pdf\]](#) [\[doi\]](#)
- [279] **Physik der Evolutionsprozesse** (Ebeling, W., Engel, A., and Feistel, R.), Akademie-Verlag Berlin, 1990. [\[pdf\]](#)
- [278] **Selbstorganisation in der Zeit** (Ebeling, W., Engel, H., and Herzel, H.), (*Holzmüller, W., Lösche, A., Reichardt, H., Treder, H.-J., eds.*), Akademie-Verlag Berlin, volume 309, 1990. [\[pdf\]](#)
- [277] **Applications of Evolutionary Strategies** (Ebeling, W.), In *Systems Analysis Modelling Simulation*, volume 7, pp. 3-16, 1990. [\[pdf\]](#)
- [276] **Ionization and Level Occupation of Hydrogen-Like Ions in Highly Ionized Plasmas** (Ebeling, W.), In *Zeitschrift für physikalische Chemie-Leipzig*, volume 271, pp. 233-237, 1990. [\[pdf\]](#)
- [275] **Rudolph Clausius in Berlin (1840-1855)** (Ebeling, W. and Orphal, J.), In *Wissenschaftliche Zeitschrift der Humboldt-Universität Berlin, Mathematisch-Naturwissenschaftliche Reihe*, volume 39, pp. 210-223, 1990. [\[pdf\]](#)
- [274] **Netzwerkmodelle einfacher Lernstrategien** (Ebeling, W. and Feistel, R.), *Chapter in Natürliche Evolution von Lernstrategien*, pp. 21-37, 1990. [\[pdf\]](#)
- [273] **Das Neue in der natürlichen und in der technischen Evolution** (Ebeling, W.), *Chapter in Das Neue seine Entstehung und Aufnahme in Natur und Gesellschaft*, pp. 19-44, 1990. [\[pdf\]](#)
- [272] **Stochastic Approach to Cluster Formation in Adiabatically Expanding Molecular-Beams** (Ebeling, W., Schweitzer, F., Schimansky-Geier, L., and Ulbricht, H.), In *Zeitschrift für Physikalische Chemie-Leipzig*, volume 271, pp. 1113-1122, 1990. [\[pdf\]](#)
- [271] **Stochastic Theory of Nucleation in Open Molecular Systems** (Ebeling, W., Schimansky-Geier, L., and Schweitzer, F.), In *Zeitschrift für Physikalische Chemie Neue Folge*, volume 169, pp. 1-10, 1990. [\[pdf\]](#) [\[doi\]](#)
- [270] **Selbstorganisation und Determination - Instabilität, Mutation, Innovation, Erneuerung aus evolutionstheoretischer Sicht** (Ebeling, W.), *Chapter in Selbstorganisation. Jahrbuch für Komplexität in den Natur-, Sozial- und Geisteswissenschaften (Niedersen, U., Pohlmann, L., eds.)*, Duncker & Humblot, 1990. [\[pdf\]](#)
- [269] **Free Energy and Ionization in Dense Plasmas of the Light Elements** (Ebeling, W.), In *Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 30, pp. 553-561, 1990. [\[pdf\]](#) [\[doi\]](#)
- [268] **The application of evolution models in scientometrics** (Bruckner, E., Ebeling, W., and Scharnhorst, A.), In *Scientometrics*, volume 18, pp. 21-41, 1990. [\[pdf\]](#) [\[doi\]](#)
- [267] **Large-Noise Expansions for the Stationary Solution of Fokker-Planck Equations** (Bunke, U. and Ebeling, W.), In *Annalen der Physik*, WILEY-VCH Verlag, volume 502, pp. 101-104, 1990. [\[pdf\]](#) [\[doi\]](#)

1989

- [266] **Irreversible Processes and Selforganization**, (*Ebeling, W., Ulbricht, H., Meiling, W., Uhlmann, A., Wilhelmi, B., eds.*), Teubner-Verlag Leipzig, volume 23, 1989. [\[pdf\]](#)
- [265] **Dynamic pattern processing with adaptive excitable media** (Zülicke, C., Ebeling, W., and Schimansky-Geier, L.), In *Biosystems*, volume 22, pp. 261 - 272, 1989. [\[pdf\]](#) [\[doi\]](#)
- [264] **Simulation of Learning Networks** (Pöschel, T., Ebeling, W., and Boseniuk, T.), In *Lecture Notes in Computer Science*, volume 342, pp. 332-339, 1989. [\[pdf\]](#)
- [263] **Evolution of Complex Systems** (Feistel, R. and Ebeling, W.), Kluwer Academic Publishers, 1989. [\[pdf\]](#)
- [262] **Dynamics of Networks and Pattern Processing** (Ebeling, W., Schimansky-Geier, L., and Zülicke, C.), *Chapter in Optimal Structures in Heterogeneous Reaction Systems (Plath, P. J., ed.)*, Springer-Verlag, volume 44, pp. 139-163, 1989. [\[pdf\]](#) [\[doi\]](#)
- [261] **Transition phenomena in multidimensional systems - models of evolution** (Ebeling, W. and Schimansky-Geier, L.), *Chapter in Theory of continuous Fokker-Planck systems (Moss, F., Mc Clintock, P.V.M.E., eds.)*, Cambridge University Press, volume 1, pp. 279-306, 1989. [\[pdf\]](#) [\[doi\]](#)
- [260] **Selbstorganisation und Evolution vom Standpunkt der Physik** (Ebeling, W.), In *Zeitschrift für Angewandte Mathematik und Mechanik*, volume 69, pp. T279-T284, 1989. [\[pdf\]](#) [\[doi\]](#)
- [259] **Wir und die Natur - Chaos, Ordnung und Information** (Ebeling, W.), Urania-Verlag Leipzig, 1989. [\[pdf\]](#) [\[doi\]](#)

- [258] **Ionization-Energy and Level Shifts of Multiply Charged Ions in Nonideal Plasmas** (Ebeling, W. and Kilimann, K.), *In Zeitschrift für Naturforschung A*, volume 44, pp. 519-523, 1989. [[pdf](#)] [[doi](#)]
- [257] **Entropy lowering and attractors in phase space** (Ebeling, W. and Engel-Herbert, H.), *In Acta Physica Hungarica*, volume 66, pp. 339-348, 1989. [[pdf](#)] [[doi](#)]
- [256] **Ionization Kinetics in Non-Ideal Dense-Plasmas - Ionization Fronts** (Ebeling, W., Forster, A., Kremp, D., and Schlanges, M.), *In Physica A: Statistical Mechanics and its Applications*, volume 159, pp. 285-300, 1989. [[pdf](#)] [[doi](#)]
- [255] **On the Entropy of Dissipative and Turbulent Structures** (Ebeling, W.), *In Physica Scripta*, volume T25, pp. 238-242, 1989. [[pdf](#)] [[doi](#)]
- [254] **Dynamical Networks** (Ebeling, W. and Peschel, M.), Akademie-Verlag Berlin, 1989. [[pdf](#)]
- [253] **Information-Processing by Artificial Neural Networks** (Ebeling, W.), *In Studia Biophysica*, volume 132, pp. 17-24, 1989. [[pdf](#)]
- [252] **Information processing by artificial neural networks** (Ebeling, W.), *In studia biophysica*, volume 132, pp. 17-24, 1989. [[pdf](#)]
- [251] **Nonideality Effects in Plasmas with Multiply Charged Ions** (Ebeling, W.), *In Contributions to Plasma Physics*, WILEY-VCH Verlag, volume 29, pp. 165-172, 1989. [[pdf](#)] [[doi](#)]
- [250] **Stochastic dynamics of instabilities in evolutionary systems** (Bruckner, E., Ebeling, W., and Scharnhorst, A.), *In System Dynamics Review*, volume 5, pp. 176-191, 1989. [[pdf](#)] [[doi](#)]
- [249] **Über die Strategie der Evolution** (Ebeling, W.), *Chapter in 1939 - J. D. Bernal's The Social Function of Science* (Steiner, H., ed.), pp. 164-174, 1989. [[pdf](#)]

1988

- [248] **Evolutionsmodelle für die Dynamik von Wissenschaftsgebieten. Mit einem Anhang von Eberhard Bruckner und Andrea Scharnhorst** (Ebeling, W. and Scharnhorst, A.), *Chapter in Wissenschaft. Das Problem ihrer Entwicklung* (Kröber, G., ed.), volume 2, pp. 187-202, 1988. [[pdf](#)]
- [247] **Stochastics of nucleation in isolated gases including carrier molecules** (Schweitzer, F., Schimansky-Geier, L., Ebeling, W., and Ulbricht, H.), *In Physica A: Statistical Mechanics and its Applications*, volume 153, pp. 573 - 591, 1988. [[pdf](#)] [[doi](#)]
- [246] **A stochastic approach to nucleation in finite systems: Theory and computer simulations** (Schweitzer, F., Schimansky-Geier, L., Ebeling, W., and Ulbricht, H.), *In Physica A: Statistical Mechanics and its Applications*, volume 150, pp. 261 - 279, 1988. [[pdf](#)] [[doi](#)]
- [245] **Simulation of Learning Networks** (Pöschel, T., Ebeling, W., and Boseniuk, T.), *Chapter in Parcella '88* (Wolf, G., Legendi, T., Schendel, U., eds.), Akademie-Verlag Berlin, volume 48, pp. 332-339, 1988. [[pdf](#)]
- [244] **The Behavior of the Entropy During Transitions Far From Thermodynamic-Equilibrium .2. Hydrodynamic Flows** (Engel-Herbert, H. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 149, pp. 195-205, 1988. [[pdf](#)] [[doi](#)]
- [243] **The Behavior of the Entropy During Transitions Far From Thermodynamic-Equilibrium .1. Sustained Oscillations** (Engel-Herbert, H. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 149, pp. 182-194, 1988. [[pdf](#)] [[doi](#)]
- [242] **Stochastic Effects in Chemical Reactions** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 269, pp. 275-283, 1988. [[pdf](#)]
- [241] **Trapping and Fusion of Solitons in a Nonuniform Toda Lattice** (Ebeling, W. and Jenssen, M.), *In Physica D: Nonlinear Phenomena*, volume 32, pp. 183-193, 1988. [[pdf](#)] [[doi](#)]
- [240] **Stochastic and Chaotic Processes in Biochemical Systems** (Ebeling, W., Herzel, H., and Schimansky-Geier, L.), *In From Chemical to Biological Organization*, volume 39, pp. 166-176, 1988. [[pdf](#)] [[doi](#)]
- [239] **Thermodynamic properties and plasma phase transition of xenon at high pressure and high temperature** (Ebeling, W., Förster, A., Richert, W., and Hess, H.), *In Physica A: Statistical Mechanics and its Applications*, volume 150, pp. 159-171, 1988. [[pdf](#)] [[doi](#)]
- [238] **Soliton Dynamics and Energy Trapping in Enzyme Catalysis** (Ebeling, W. and Jenssen, M.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 269, pp. 1-7, 1988. [[pdf](#)]

- [237] **Evolution Strategies in Complex Optimization - The Traveling Salesman Problem** (Boseniuk, T. and Ebeling, W.), *In Systems Analysis Modelling Simulation*, volume 5, pp. 413-422, 1988. [\[pdf\]](#)
- [236] **Optimization of NP-Complete Problems by Boltzmann-Darwin Strategies Including Life-Cycles** (Boseniuk, T. and Ebeling, W.), *In Epl*, volume 6, pp. 107-112, 1988. [\[pdf\]](#) [\[doi\]](#)
- [235] **Thermodynamic Functions, Ionization Equilibrium and Phase Transitions in Coulomb Systems** (Kraeft, W. D., Ebeling, W., Kremp, D., and Röpke, G.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 500, pp. 429-442, 1988. [\[pdf\]](#) [\[doi\]](#)

1987

- [234] **Zur Großen Berliner Physik**, (Rompe, R., Treder, H. J., Ebeling, W., eds.), Teubner-Verlagsgesellschaft, pp. 1-90, 1987. [\[pdf\]](#)
- [233] **Thermodynamic Properties and Phase Transitions in Hydrogen and Rare Gas Plasmas** (Hess, H. and Ebeling, W.), *Chapter in Strongly Coupled Plasma Physics*, volume 154, pp. 185-198, 1987. [\[pdf\]](#) [\[doi\]](#)
- [232] **Nonuniform Chaotic Dynamics and Effects of Noise in Biochemical Systems** (Herzel, H., Ebeling, W., and Schulmeister, T.), *In Zeitschrift für Naturforschung A*, volume 42, pp. 136-142, 1987. [\[pdf\]](#) [\[doi\]](#)
- [231] **Interaction of Moving Interfaces with Obstacles** (Engel, A. and Ebeling, W.), *In Physics Letters A*, volume 122, pp. 20-24, 1987. [\[pdf\]](#) [\[doi\]](#)
- [230] **Diffusion in a Random Potential - Hopping as a Dynamic Consequence of Localization - Comment** (Engel, A. and Ebeling, W.), *In Physical Review Letters*, volume 59, pp. 1979-1979, 1987. [\[pdf\]](#) [\[doi\]](#)
- [229] **Zur Geschichte der Thermodynamik in Berlin** (Ebeling, W.), *Chapter in (Rompe, R., Treder, H. J., Ebeling, W., eds.)*, Teubner-Verlagsgesellschaft, pp. 71-88, 1987. [\[pdf\]](#)
- [228] **Dynamics and Complexity of Biomolecules** (Ebeling, W., Feistel, R., and Herzel, H.), *In Physica Scripta*, volume 35, pp. 761-768, 1987. [\[pdf\]](#) [\[doi\]](#)
- [227] **Reflections on the strategies of evolution** (Ebeling, W.), *In Deutsche Zeitung für Philosophie*, volume 35, pp. 731-734, 1987. [\[pdf\]](#)
- [226] **VANISHING LATTICES AND MONODROMY GROUPS OF ISOLATED COMPLETE INTERSECTION SINGULARITIES** (Ebeling, W.), *In INVENTIONES MATHEMATICAE*, volume 90, pp. 653-668, 1987. [\[pdf\]](#) [\[doi\]](#)
- [225] **Instabilities and Phase Transitions in Dense Hydrogen, Rare Gas and Alkali Plasmas** (Ebeling, W., Förster, A., Redmer, R., Rother, T., and Schlages, M.), *In Rare Gas and Alkali Plasmas*, 1987. [\[pdf\]](#)
- [224] **THE MONODROMY GROUPS OF ISOLATED SINGULARITIES OF COMPLETE-INTERSECTIONS** (Ebeling, W.), *In LECTURE NOTES IN MATHEMATICS*, volume 1293, pp. 1-149, 1987. [\[pdf\]](#) [\[doi\]](#)
- [223] **Physik komplexer nichtlinearer Netzwerke und neue Wege der Informationsverarbeitung** (Ebeling, W.), Akademie Verlag Berlin, 1987. [\[pdf\]](#)
- [222] **Dynamical Systems and Environmental Models** (Bothe, H. G., Ebeling, W., Kurzhanski, A. B., and Peschel, M.), Akademie-Verlag Berlin, 1987. [\[pdf\]](#)
- [221] **Boltzmann and Darwin Strategies in Complex Optimization** (Boseniuk, T., Ebeling, W., and Engel, A.), *In Physics Letters A*, volume 125, pp. 307-310, 1987. [\[pdf\]](#) [\[doi\]](#)

1986

- [220] **Dynamics of Interfaces in Random Media** (Engel, A., Ebeling, W., Feistel, R., and Schimansky-Geier, L.), *Chapter in*, Springer Verlag, volume 33, pp. 110-117, 1986. [\[pdf\]](#)
- [219] **Thermodynamic Aspects of Selforganization** (Ebeling, W., Engel-Herbert, H., and Herzel, H.), *Chapter in*, Springer Verlag, volume 33, pp. 2-16, 1986. [\[pdf\]](#)
- [218] **Influence of Noise on Duffing-Van der Pol Oscillators** (Ebeling, W., Herzel, H., Richert, W., and Schimansky-Geier, L.), *In Zeitschrift für Angewandte Mathematik und Mechanik*, WILEY-VCH Verlag, volume 66, pp. 141-146, 1986. [\[pdf\]](#) [\[doi\]](#)
- [217] **On the Kinetics of Nucleation in Isochoric Gases** (Schimansky-Geier, L., Schweitzer, F.,

Ebeling, W., and Ulbricht, H.), *In Selforganization by Nonlinear Irreversible Processes - Proceedings of the Third International Conference Kühlungsborn, GDR, March 18–22, 1985*, pp. 67-75, 1986. [\[pdf\]](#) [\[doi\]](#)

- [216] **Quantum Statistics of Charged Particle Systems** (Kraeft, W. D., Kremp, D., Ebeling, W., and Röpke, G.), Akademie-Verlag Berlin, 1986. [\[pdf\]](#) [\[doi\]](#)
- [215] **On Stochastic Models for Human Conduct in the Evolution of Science and Technology** (Ebeling, W.), *Chapter in*, Centre d'Etudes Internationales pour le Developpement, volume 14, 1986. [\[pdf\]](#)
- [214] **A Stochastic Description of Evolutionary Processes in Underoccupied Systems** (Ebeling, W. and Sonntag, I.), *In Biosystems*, volume 19, pp. 91-100, 1986. [\[pdf\]](#) [\[doi\]](#)
- [213] **Pattern Dynamics and Optimization by Reaction Diffusion-Systems** (Ebeling, W.), *In Journal of Statistical Physics*, volume 45, pp. 891-903, 1986. [\[pdf\]](#) [\[doi\]](#)
- [212] **The Milnor Lattices of the Elliptic Hypersurface Singularities** (Ebeling, W.), *In Proceedings of the London Mathematical Society*, volume 53, pp. 85-111, 1986. [\[pdf\]](#) [\[doi\]](#)
- [211] **Self-Organization Models for Field Mobility of Physicists** (Ebeling, W. and Scharnhorst, A.), *In Czechoslovak Journal of Physics*, volume 36, pp. 43-46, 1986. [\[pdf\]](#) [\[doi\]](#)
- [210] **Selforganization by Nonlinear Irreversible Processes** (Ebeling, W. and Ulbricht, H.), (Ebeling, W., Ulbricht, H., eds.), Springer-Verlag, volume 33, 1986. [\[pdf\]](#)
- [209] **Modeling of Selection Processes With Age-Dependent Birth and Death Rates** (Ebeling, W., Engel, A., and Mazenko, V. G.), *In Biosystems*, volume 19, pp. 213-221, 1986. [\[pdf\]](#) [\[doi\]](#)
- [208] **Quantum statistics of coulomb systems: Thermodynamic functions and phase transitions** (Ebeling, W., Kraeft, W. D., Kremp, D., and Röpke, G.), *In Physica A: Statistical Mechanics and its Applications*, volume 140, pp. 160-168, 1986. [\[pdf\]](#) [\[doi\]](#)
- [207] **Kinetic-Models of Tumor-Cell Populations Influenced by a Photodynamic Therapy** (Ebeling, W., Röder, B., and Schimansky-Geier, L.), *In Studia Biophysica*, volume 113, pp. 151-160, 1986. [\[pdf\]](#)
- [206] **Models of Evolutionary Systems and Their Application to Optimization Problems** (Ebeling, W. and Engel, A.), *In Syst. Anal. Model. Simul.*, volume 3, pp. 377-385, 1986. [\[pdf\]](#)
- [205] **On Stochastic Models for Human Conduct** (Ebeling, W.), *Chapter in (Prigogine, I., Sanglier, M., eds.)*, pp. 77-80, 1986. [\[pdf\]](#)

1985

- [204] **Stochastic Description of a Biochemical Oscillator** (Ebeling, W., Schimansky-Geier, L., and Herzel, H.), *Chapter in Nonlinear Oscillations: 10th International Conference, Varna, Sept. 1984, Proceedings (Brankov, G., Bulgarian Academy of Sciences, Institute of Mechanics, Biomechanics, eds.)*, Publishing House of the Bulgarian Academy of Sciences, 1985.
- [203] **Recent Developments in Nonequilibrium Thermodynamics. Proceedings, Barcelona, Spain 1983** (Ebeling, W.), *In*, WILEY-VCH Verlag, volume 65, pp. 416-416, 1985. [\[pdf\]](#) [\[doi\]](#)
- [202] **Noise Induced Transitions Due to External Additive Noise** (Schimansky-Geier, L., Tolstopjatenko, A. V., and Ebeling, W.), *In Physics Letters A*, volume 198, pp. 329-332, 1985. [\[pdf\]](#) [\[doi\]](#)
- [201] **Fokker-Planck Equations for nonlinear kinetic processes and their solution** (Schimansky-Geier, L. and Ebeling, W.), *In Proc. of the XVIth Symposium on Advanced Problems and Methods in Fluid Mechanics, Spała, Poland, september 4-10, 1983 (Fiszdon, W., Zorski, H., Zawistowska, E., eds.)*, Polish Scientific Publishers, volume 12, pp. 7-22, 1985. [\[pdf\]](#)
- [200] **Thermodynamic Properties of Liquid Hydrogen Metal** (Ebeling, W. and Richert, W.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 128, pp. 467-474, 1985. [\[pdf\]](#) [\[doi\]](#)
- [199] **The Decay of Correlations in Chaotic Maps** (Herzel, H. and Ebeling, W.), *In Physics Letters A*, volume 111, pp. 1-4, 1985. [\[pdf\]](#) [\[doi\]](#)
- [198] **The Influence of Noise on a Biochemical Oscillator** (Herzel, H., Ebeling, W., Schimansky-Geier, L., and Selkov, E. E.), Akademie-Verlag Berlin, volume 23, pp. 152-161, 1985. [\[pdf\]](#)
- [197] **Evolution of biological organization and information processing** (Feistel, R. and Ebeling, W.), *In Selfregulation of Plant Metabolism*, volume 5, pp. 24-31, 1985. [\[pdf\]](#)
- [196] **The Influence of Fluctuations on Sustained Oscillations** (Engel-Herbert, H., Ebeling, W., and

- Herzel, H.), *In* , volume 29, pp. 144-152, 1985. [\[pdf\]](#) [\[doi\]](#)
- [195] **Energy Transfer and Chaotic Oscillations in Enzyme Catalysis** (Ebeling, W. and Romanovsky, Y. M.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 266, pp. 836-843, 1985. [\[pdf\]](#)
- [194] **Rompe, Robert on his 80th Birthday** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 266, pp. 833-835, 1985. [\[pdf\]](#)
- [193] **Thermodynamics of Selforganization and Evolution** (Ebeling, W.), *In Biomedica Biochimica Acta*, volume 44, pp. 831-838, 1985. [\[pdf\]](#)
- [192] **Plasma Phase-Transition in Hydrogen** (Ebeling, W. and Richert, W.), *In PHYSICS LETTERS A*, volume 108, pp. 80-82, 1985. [\[pdf\]](#) [\[doi\]](#)
- [191] **Statistical Thermodynamics of Fluid Hydrogen at High-Energy Density** (Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 130, pp. 587-596, 1985. [\[pdf\]](#) [\[doi\]](#)
- [190] **Stochastic models of innovation processes** (Ebeling, W.), *In Annual Review in Automatic Programming*, volume 12, pp. 54-57, 1985. [\[pdf\]](#) [\[doi\]](#)
- [189] **Theory of Stochastic Biochemical Oscillations** (Ebeling, W., Herzel, H., and Selkov, E. E.), *In* , pp. 443-449, 1985. [\[pdf\]](#)
- [188] **Lotka-Volterra-Approach to Cooperation and Competition in Dynamic Systems** (Ebeling, W. and Peschel, M.), Akademie-Verlag Berlin, volume 23, 1985. [\[pdf\]](#)
- [187] **On the Entropy of Dissipative Structures** (Ebeling, W., Herzel, H., and Engel-Herbert, H.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 266, pp. 253-256, 1985. [\[pdf\]](#)
- [186] **Energy-Levels in Hydrogen Plasmas and the Planck-Larkin Partition-Function - A Comment** (Ebeling, W., Kraeft, W. D., Kremp, D., and Röpke, G.), *In The Astrophysical Journal*, volume 290, pp. 24-27, 1985. [\[pdf\]](#) [\[doi\]](#)
- [185] **Continuous Lotka-Volterra models for evolution processes** (Ebeling, W. and Feistel, R.), *Chapter in Mathematical Reserach - Lotka-Volterra-Approach to Cooperation and Competition in Dynamic Systems (Ebeling, W., Peschel, M., eds.)*, Akademie-Verlag Berlin, pp. 55-62, 1985. [\[pdf\]](#)

1984

- [184] **Thermodynamic Functions of the Electron Fluid for a Wide Density—Temperature Range** (Richert, W. and Ebeling, W.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 121, pp. 633–639, 1984. [\[pdf\]](#) [\[doi\]](#)
- [183] **Formation of Spatial Structures in One-Component and 2-Component Nonlinear Reaction Diffusion System** (Malchow, H. and Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 265, pp. 49-60, 1984. [\[pdf\]](#)
- [182] **Remarks on the Correlation-Function Implied by the Bjerrum Theory of Ion-Pairing** (Grigo, M. and Ebeling, W.), *In Journal of Solution Chemistry*, volume 13, pp. 321-333, 1984. [\[pdf\]](#) [\[doi\]](#)
- [181] **A simple theoretical-model for self-electrophoresis** (Feudel, U. and Ebeling, W.), *In Studia Biophysica*, volume 100, pp. 131-138, 1984. [\[pdf\]](#)
- [180] **Stochastic Models of Evolutionary Processes** (Feistel, R. and Ebeling, W.), *Chapter in* , pp. 437-450, 1984. [\[pdf\]](#)
- [179] **Energieumwandlung auf der Grundlage isothermer dissipativer Strukturen** (Feistel, R. and Ebeling, W.), *In Experimentelle Technik der Physik*, volume 32, pp. 1-12, 1984. [\[pdf\]](#)
- [178] **AN ARITHMETIC CHARACTERIZATION OF THE SYMMETRIC MONODROMY GROUPS OF SINGULARITIES** (Ebeling, W.), *In INVENTIONES MATHEMATICAE*, volume 77, pp. 85-99, 1984. [\[pdf\]](#) [\[doi\]](#)
- [177] **Diffusion and Reaction in Random-Media and Models of Evolution Prozesse** (Ebeling, W., Engel, A., Esser, B., and Feistel, R.), *In Journal of Statistical Physics*, volume 37, pp. 369-384, 1984. [\[pdf\]](#) [\[doi\]](#)
- [176] **The place of physics in the system of sciences - a critique of physicalism** (Ebeling, W.), *In Deutsche Zeitung für Philosophie*, volume 32, pp. 33-40, 1984. [\[pdf\]](#)
- [175] **Physical Models of Evolution Processes** (Ebeling, W. and Feistel, R.), *In Self-Organization Autowaves and Structures Far from Equilibrium - Proceedings of an International Symposium Pushchino, USSR, July 18–23, 1983*, volume 28, pp. 233-239, 1984. [\[pdf\]](#) [\[doi\]](#)
- [174] **Transport Properties of Dense Plasmas** (Ebeling, W., Fortov, V. E., Klimontovich, Y. L.,

Kowalenko, N. P., Kraeft, W. D., Krasny, Y. E., Kremp, D., Kulik, P., and Riabii, V. A.), Akademie-Verlag Berlin, 1984. [\[pdf\]](#)

- [173] **Radial-Distribution Function in a Modified Bjerrum Model For Associating Electrolytes** (Ebeling, W. and Grigo, M.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 265, pp. 1072-1078, 1984. [\[pdf\]](#)
- [172] **Selforganization and Turbulence in Liquids** (Ebeling, W. and Klimontovich, Y. L.), (*Ebeling, W., Meiling, W., Uhlmann, A., Wilhelmi, B., eds.*), Teubner-verlag Leipzig, volume 2, 1984. [\[pdf\]](#)
- [171] **Random Phenomena in Nonlinear Systems in Connection with the Volterra Approach** (Albrecht, K. F., Chetverikov, V., Ebeling, W., Funke, R., Mende, W., and Peschel, M.), *In Stochastic Phenomena and Chaotic Behaviour in Complex Systems*, volume 21, pp. 250-270, 1984. [\[pdf\]](#) [\[doi\]](#)

1983

- [170] **Stochastic Motion of the Propagating Front in Bistable Media** (Mikhailov, A. S., Schimansky-Geier, L., and Ebeling, W.), *In Physics Letters A*, volume 96, pp. 453-456, 1983. [\[pdf\]](#) [\[doi\]](#)
- [169] **Polarity, Symmetry, and Gradients in a Reaction-Diffusion System .2. Patterns of Charged-Particles** (Malchow, H., Ebeling, W., and Feistel, R.), *In Studia Biophysica*, volume 97, pp. 231-236, 1983. [\[pdf\]](#)
- [168] **HNC-Type Approximation For Transport Processes in Electrolytic Solutions** (Kremp, D., Ebeling, W., Krienke, H., and Sändig, R.), *In Journal of Statistical Physics*, volume 33, pp. 99-106, 1983. [\[pdf\]](#) [\[doi\]](#)
- [167] **Räumliche Phasenseparation im Nichtgleichgewicht** (Ebeling, W. and Malchow, H.), *In Sitzungsberichte des Dresdener Seminars für Theoretische Physik (DSTP)*, volume 19, pp. 68-82, 1983. [\[pdf\]](#)
- [166] **Autocatalytic Models for Turbulent Flows in Tubes** (Ebeling, W.), *In Annalen der Physik*, volume 40, pp. 51-60, 1983. [\[pdf\]](#) [\[doi\]](#)
- [165] **Physik der Selbstorganisation und Evolution** (Ebeling, W.), *In Friedrich-Schiller-Universität Jena*, pp. 36-51, 1983. [\[pdf\]](#)
- [164] **Thermodynamik irreversibler Prozesse und spontane Strukturbildung mit Beispielen aus Physik und Geophysik** (Ebeling, W. and Feistel, R.), *In Sitzungsberichte der Akademie der Wissenschaften der DDR*, volume 10, pp. 22-29, 1983. [\[pdf\]](#) [\[doi\]](#)
- [163] **Stochastic Aspects of the Evolution of Macromolecules** (Ebeling, W.), *In Darwin today : the 8th Kühlungsborn Colloquium on Philosophical and Ethical Problems of Biosciences : Kühlungsborn, 8th-12th November 1981*, pp. 187-191, 1983. [\[pdf\]](#)
- [162] **The Influence of Noise on an Oscillating Glycolytic Model** (Ebeling, W., Herzel, H., and Selkov, E. E.), *In Studia Biophysica*, volume 98, pp. 147-154, 1983. [\[pdf\]](#)
- [161] **On the Estimation of Theoretical Individual Activity-Coefficients of Electrolytes .1. Hard-Sphere Model** (Ebeling, W. and Scherwinski, K.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 264, pp. 1-14, 1983. [\[pdf\]](#)
- [160] **Evolution and the stochastic description of simple ecosystems** (Allen, P. M. and Ebeling, W.), *In Biosystems*, volume 16, pp. 113 - 126, 1983. [\[pdf\]](#) [\[doi\]](#)
- [159] **Effect of Fluctuation on Plane Front Propagation in Bistable Nonequilibrium Systems** (Schimansky-Geier, L., Mikhailov, A. S., and Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 495, pp. 277-286, 1983. [\[pdf\]](#) [\[doi\]](#)
- [158] **Stochastic Bifurcations in a Bistable Reaction-Diffusion System with Neumann Boundary Conditions** (Malchow, H., Ebeling, W., Feistel, R., and Schimansky-Geier, L.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 495, pp. 151-160, 1983. [\[pdf\]](#) [\[doi\]](#)
- [157] **Influence of Coulomb Interactions on Dissipative Structures in Reaction-Diffusion Systems** (Ebeling, W. and Feudel, U.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 495, pp. 68-78, 1983. [\[pdf\]](#) [\[doi\]](#)
- [156] **Discussion of the Klimontovich Theory of Hydrodynamic Turbulence** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 495, pp. 25-33, 1983. [\[pdf\]](#) [\[doi\]](#)
- [155] **Stochastic Theory of Nucleation in Nonequilibrium Bistable Reaction Systems** (Schimansky-Geier, L. and Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 495, pp. 10-24,

1983. [\[pdf\]](#) [\[doi\]](#)

1982

- [154] **On the Structure and Interaction of Double Layers** (Feudel, U. and Ebeling, W.), *In Studia Biophysica*, volume 90, pp. 217-218, 1982. [\[pdf\]](#)
- [153] **Models of Darwinian Processes and Evolutionary Principles** (Feistel, R. and Ebeling, W.), *In Biosystems*, volume 15, pp. 291-299, 1982. [\[pdf\]](#) [\[doi\]](#)
- [152] **Stochastic Theory of Kinetic Transitions in Nonlinear Mechanical Systems** (Engel-Herbert, H. and Ebeling, W.), *In Advances in Mechanics*, volume 5, 1982. [\[pdf\]](#)
- [151] **Physik der Selbstorganisation und Evolution** (Ebeling, W. and Feistel, R.), Akademie-Verlag Berlin, 1982. [\[pdf\]](#)
- [150] **Evolution from a physical point of view** (Ebeling, W.), *In Deutsche Zeitung Für Philosophie*, volume 30, pp. 345-353, 1982. [\[pdf\]](#)
- [149] **Extremal Principles and Catastrophe Theory for Stochastic Models of Nonlinear Irreversible Processes** (Ebeling, W. and Engel-Herbert, H.), *Chapter in Thermodynamics and Kinetics of Biological Processes*, pp. 197-215, 1982. [\[pdf\]](#)
- [148] **Electric-Potential and Charge-Distribution in the Cell-Surface Coat** (Ebeling, W. and Feudel, U.), *In Studia Biophysica*, volume 89, pp. 179-185, 1982. [\[pdf\]](#)
- [147] **Mean Spherical Approximation Mass-Action Law Theory of Equilibrium and Conductance in Ionic-Solutions** (Ebeling, W. and Grigo, M.), *In Journal of Solution Chemistry*, volume 11, pp. 151-167, 1982. [\[pdf\]](#) [\[doi\]](#)
- [146] **Physical Factors in Evolutionary Processes - Entropy Export, Self-Reproduction and Mutation** (Ebeling, W.), *In Deutsche Gesundheitswesen-Zeitschrift für klinische Medizin*, volume 37, pp. 1039-1043, 1982. [\[pdf\]](#)
- [145] **Thermodynamic Functions of Nonideal Hydrogen Plasmas** (Ebeling, W. and Richert, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 494, pp. 362-370, 1982. [\[pdf\]](#) [\[doi\]](#)

1981

- [144] **Contributions to the Theory of Competing Predators .3. on the Existence of Extremum-principles** (Schmelzer, J.W.P., Ebeling, W., and Feistel, R.), *In Studia Biophysica*, volume 82, pp. 157-158, 1981. [\[pdf\]](#)
- [143] **Padé Approximations for the Thermodynamic Functions of Weakly Interacting Coulombic Quantum Systems** (Ebeling, W., Richert, W., Kraeft, W. D., and Stolzmann, W.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 104, pp. 193-202, 1981. [\[pdf\]](#) [\[doi\]](#)
- [142] **On the Thermodynamic of Irreversible-Processes in Ecosystems** (Feistel, R. and Ebeling, W.), *In Studia Biophysica*, volume 86, pp. 237-244, 1981. [\[pdf\]](#)
- [141] **On the Evolution of Biological Macromolecules .2. Catalytic Networks** (Ebeling, W., Sonntag, I., and Schimansky-Geier, L.), *In Studia Biophysica*, volume 84, pp. 87-88, 1981. [\[pdf\]](#)
- [140] **Conductance Theory of Concentrated Electrolytes in an MSA-Type Approximation** (Ebeling, W. and Rose, J.), *In Journal of Solution Chemistry*, volume 10, pp. 599-609, 1981. [\[pdf\]](#) [\[doi\]](#)
- [139] **Physikalische Prinzipien der Selbstorganisation und Evolution** (Ebeling, W.), *In Akademie der Wissenschaften der DDR*, pp. 3-34, 1981. [\[pdf\]](#)
- [138] **Structural Stability of Stochastic Systems** (Ebeling, W.), *In Chaos and Order in Nature*, volume 11, pp. 188-195, 1981. [\[pdf\]](#) [\[doi\]](#)
- [137] **Physikalische Prinzipien der Selbstorganisation und Evolution (II)** (Ebeling, W.), *In Spectrum*, pp. 14-17, 1981. [\[pdf\]](#)

1980

- [136] **Contributions to the Theory of Competing Predators .2. the Case of Constant Overall Organization** (Schmelzer, J.W.P. and Ebeling, W.), *In Studia Biophysica*, volume 80, pp. 53-54, 1980. [\[pdf\]](#)
- [135] **Quantum-statistical conductance theory of nonideal plasmas by use of the force-force correlation function method** (Röpke, G., Ebeling, W., and Kraeft, W.-D.), *In Physica A: Statistical Mechanics and its Applications*, volume 101, pp. 243 - 254, 1980. [\[pdf\]](#) [\[doi\]](#)
- [134] **Strukturelle Instabilitäten chemischer Reaktionen** (Engel-Herbert, H., Schimansky-Geier, L.,

- and Ebeling, W.), *In Greifswalder Physikalische Hefte*, volume 5, pp. 18-21, 1980. [\[pdf\]](#)
- [133] **Nonequilibrium Phase Transition and Nucleation in Reacting Systems** (Ebeling, W. and Schimansky-Geier, L.), *In Proc. of the 7th International Conference on Thermodynamics*, TH Leuna Merseburg, pp. 95-100, 1980. [\[pdf\]](#)
- [132] **Concurrence of a Set of Species in Parallel Autocatalytic Reactions** (Ebeling, W. and Schmelzer, J.W.P.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 261, pp. 677-696, 1980. [\[pdf\]](#)
- [131] **On Grammars, Complexity, and Information Measures of Biological Macromolecules** (Ebeling, W. and Jiménez-Montaña, M. A.), *In Mathematical Biosciences*, volume 52, pp. 53-71, 1980. [\[pdf\]](#) [\[doi\]](#)
- [130] **The influence of external fluctuations on self-sustained temporal oscillations** (Ebeling, W. and Engel-Herbert, H.), *In Physica A: Statistical Mechanics and its Applications*, volume 104, pp. 378-396, 1980. [\[pdf\]](#) [\[doi\]](#)
- [129] **Contributions to the Theory of Competing Predators .1. the Case of Constant Input Fluxes of Raw-Material** (Ebeling, W. and Schmelzer, J.W.P.), *In Studia Biophysica*, volume 78, pp. 31-32, 1980. [\[pdf\]](#)
- [128] **An Analytical Calculation of the Equation of State and the Critical Point in a Dense Classical Fluid of Charged Hard Spheres** (Ebeling, W. and Grigo, M.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 492, pp. 21-30, 1980. [\[pdf\]](#) [\[doi\]](#)

1979

- [127] **Oszillationen in chemischen Reaktionssystemen vom Lotka-Typ.** (Schmelzer, J.W.P. and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Wilhelm-Pieck-Universität Rostock, Mathematisch-Naturwissenschaftliche Reihe*, volume 28, pp. 233-242, 1979. [\[pdf\]](#)
- [126] **Ionic Interactions in Solutions .4. Conductance Theory of Binary Electrolytes for Hamiltonian Models** (Justice, J. C. and Ebeling, W.), *In Journal of Solution Chemistry*, volume 8, pp. 809-833, 1979. [\[pdf\]](#) [\[doi\]](#)
- [125] **Theory of a Fluid of Interacting and Reactive Particles** (Friedman, H. L. and Ebeling, W.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 33-52, 1979. [\[pdf\]](#)
- [124] **Stochastic dynamics of a bistable reaction system** (Ebeling, W. and Schimansky-Geier, L.), *In Physica A: Statistical Mechanics and its Applications*, volume 98, pp. 587 - 600, 1979. [\[pdf\]](#) [\[doi\]](#)
- [123] **Statistical Thermodynamics and Conductance for Strong Electrolytes with Exponential Interaction Potential** (Ebeling, W. and Krienke, H.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 53-66, 1979. [\[pdf\]](#)
- [122] **Vorwort** (Ebeling, W. and Künstner, H.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 5, 1979. [\[pdf\]](#)
- [121] **Bestimmung thermodynamischer Funktionen aus Potentialparametern für die interionische Wechselwirkung** (Ebeling, W. and Scherwinski, K.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 15-31, 1979. [\[pdf\]](#)
- [120] **Frequency Dependent Conductance and Dielectric Permittivity of Electrolytes** (Ebeling, W. and Justice, J. C.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 133-143, 1979. [\[pdf\]](#) [\[doi\]](#)
- [119] **Evolution of Biological Macromolecules .1. Physicochemical Self-Organization** (Ebeling, W. and Feistel, R.), *In Studia Biophysica*, volume 75, pp. 131-146, 1979. [\[pdf\]](#)
- [118] **Theory of Ion Pairing for Gurney-Friedman Models of Electrolytes** (Ebeling, W.), *In Rostocker Physikalische Manuskripte*, volume 4, pp. 125-132, 1979. [\[pdf\]](#)
- [117] **Kinetics of Molecular Replication and Selection.** (Ebeling, W. and Mahnke, R.), *In Zagadnienia Biofizyki Wspolczesnej*, volume 4, pp. 119-128, 1979. [\[pdf\]](#)
- [116] **Conductance Theory of Nonideal Plasmas** (Ebeling, W. and Röpke, G.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 491, pp. 429-437, 1979. [\[pdf\]](#) [\[doi\]](#)
- [115] **Pressure Ionization in Nonideal Alkali Plasmas** (Ebeling, W., Meister, C.-V., Sändig, R., and Kraeft, W.-D.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 491, pp. 321-332, 1979. [\[pdf\]](#) [\[doi\]](#)
- [114] **Bifurcations in a Bistable Reaction-Diffusion System** (Ebeling, W. and Malchow, H.), *In*

1978

- [113] **Inter-Ionic Interactions and Thermodynamics of Strong Electrolytes .2. Alkaline Halides at 25 Degrees C in H₂O** (Wiechert, H., Krienke, H., Feistel, R., and Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 259, pp. 1057-1075, 1978. [[pdf](#)]
- [112] **Eigen-Schuster Concept of Quasi-Species in Theory of Natural Self-Organization** (Feistel, R. and Ebeling, W.), *In Studia Biophysica*, volume 71, pp. 139-139, 1978. [[pdf](#)]
- [111] **Deterministic and stochastic theory of sustained oscillations in autocatalytic reaction systems** (Feistel, R. and Ebeling, W.), *In Physica A: Statistical Mechanics and its Applications*, volume 93, pp. 114 - 137, 1978. [[pdf](#)] [[doi](#)]
- [110] **Ein stochastisches Modell für das Wirken des Marx'schen Wertgesetzes im Kapitalismus der freien Konkurrenz** (Ebeling, W.), *In Rostocker Physikalische Manuskripte*, volume 3, pp. 47-54, 1978. [[pdf](#)]
- [109] **Nonequilibrium Transitions and Stationary Probability Distributions of Stochastic-Processes** (Ebeling, W.), *In Physics Letters A*, volume 68, pp. 430-432, 1978. [[pdf](#)] [[doi](#)]
- [108] **Complexity of Cytochrome-C and Influence of Genetic Code** (Ebeling, W. and Mahnke, R.), *In Studia Biophysica*, volume 71, pp. 173-180, 1978. [[pdf](#)]
- [107] **Generalizations of Onsagers Semiphenomenological Theory of Electrolytic Conductance** (Ebeling, W., Feistel, R., Kelbg, G., and Sändig, R.), *In Journal of Non-Equilibrium Thermodynamics*, volume 3, pp. 11-28, 1978. [[pdf](#)] [[doi](#)]

1977

- [106] **Derivation of Generalized Diffusion Equations** (Ivanov, C. and Ebeling, W.), *In Acta Physica Polonica*, volume A52, pp. 329-343, 1977. [[pdf](#)]
- [105] **Stochastic Investigation of a Limit Cycle System: Generalized Lotka-Selkov Reaction** (Feistel, R. and Ebeling, W.), *In Rostocker Physikalische Manuskripte*, pp. 55-70, 1977. [[pdf](#)]
- [104] **Stochastic Theory of Nucleation in Bistable Reactions Systems** (Ebeling, W., Ivanov, C., and Schimansky-Geier, L.), *In Rostocker Physikalische Manuskripte*, volume 2, pp. 93-103, 1977. [[pdf](#)]
- [103] **Dissipative Strukturen bei autokatalytischen Reaktionssystemen** (Ebeling, W., Feistel, R., and Schmelzer, J.W.P.), *In Wissenschaftliche Zeitschrift der Wilhelm-Pieck-Universität Rostock*, volume 26, pp. 647-653, 1977. [[pdf](#)]
- [102] **Vorwort** (Ebeling, W. and Ulbricht, H.), *Chapter in* , pp. 3-7, 1977. [[pdf](#)]
- [101] **Limit Cycles in Reaction Systems with Second Order Autocatalysis** (Ebeling, W. and Feistel, R.), *In VII. Internationale Konferenz über nichtlineare Schwingungen*, volume 7, pp. 269-276, 1977. [[pdf](#)] [[doi](#)]
- [100] **Beiträge der Physik zur mathematischen Modellierung gesellschaftlicher Prozesse** (Ebeling, W.), *Chapter in* , pp. 25-47, 1977. [[pdf](#)]
- [99] **Strukturelle Instabilitäten nichtlinearer irreversibler Prozesse** (Ebeling, W. and Engel-Herbert, H.), *In Rostocker Physikalische Manuskripte*, pp. 25-44, 1977. [[pdf](#)]
- [98] **Makroskopische Materie als Quantensystem von Punktladungen** (Ebeling, W.), *Chapter in 75 Jahre Quantentheorie - Festband zum 75. Jahrestag der Entdeckung der Planckschen Energiequanten* (Brauer, W., Streitwolf, H.-W., Werner, K., eds.), Akademie-Verlag, volume 7, pp. 149-167, 1977. [[pdf](#)]
- [97] **On the Theory of Stochastic Replication and Evolution of molecular Sequences** (Ebeling, W., Feistel, R., and Jiménez-Montaña, M. A.), *In Rostocker Physikalische Manuskripte*, volume 2, pp. 105-127, 1977. [[pdf](#)] [[doi](#)]
- [96] **Nonequilibrium Phase-Transitions in Enzyme Reaction Systems** (Czajkowski, G. and Ebeling, W.), *In Journal of Non-Equilibrium Thermodynamics*, volume 2, pp. 1-16, 1977. [[pdf](#)] [[doi](#)]
- [95] **Stochastic Theory of Molecular Replication Processes with Selection Character** (Ebeling, W. and Feistel, R.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 489, pp. 81-90, 1977. [[pdf](#)] [[doi](#)]
- [94] **Theory of the Ionization Equilibrium in Nonideal Alkali Plasmas** (Zimdahl, W. and Ebeling,

1976

- [93] **Coexisting phases in an electron—hole plasma** (Ebeling, W., Kraeft, W. D., Kremp, D., and Kilimann, K.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 78, pp. 241-253, 1976. [\[pdf\]](#) [\[doi\]](#)
- [92] **Dynamische Modelle zum Selektionsverhalten offener Systeme** (Feistel, R. and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Wilhelm-Pieck-Universität Rostock, Mathematisch-Naturwissenschaftliche Reihe*, volume 25, pp. 507-513, 1976. [\[pdf\]](#)
- [91] **Zum Problem der Klassifikation physikalischer Strukturen im Gleichgewicht und im Nichtgleichgewicht** (Ebeling, W.), *In* , pp. 93-96, 1976. [\[pdf\]](#)
- [90] **Nonlinear Kinetics of Homogeneous Concurrent Reactions** (Ebeling, W. and Feistel, R.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 257, pp. 705-720, 1976. [\[pdf\]](#)
- [89] **Theory of Electrolytic Conductivity at High-Concentrations** (Ebeling, W., Feistel, R., and Geisler, D.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 257, pp. 337-353, 1976. [\[pdf\]](#)
- [88] **Wie können Strukturen spontan entstehen?** (Ebeling, W.), *In Wissenschaft und Fortschritt*, volume 26, pp. 309-313, 1976. [\[pdf\]](#)
- [87] **Physikalische Aspekte der qualitativen Sprünge bei Entwicklungsprozessen. II. Modellsysteme** (Ebeling, W. and Feistel, R.), *In Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin*, volume 25, pp. 25-28, 1976. [\[pdf\]](#)
- [86] **Phase Separation in Bistable Enzyme Reaction Systems** (Ebeling, W. and Czajkowski, G.), *In Studia Biophysica*, volume 60, pp. 201-204, 1976. [\[pdf\]](#)
- [85] **Physikalische Aspekte der qualitativen Sprünge bei Entwicklungsprozessen. I. Grundlagen** (Ebeling, W.), *In Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin*, volume 25, pp. 20-24, 1976. [\[pdf\]](#)
- [84] **Strukturbildung bei irreversiblen Prozessen. Einführung in die Theorie dissipativer Strukturen** (Ebeling, W.), Teubner-Verlag Leipzig, volume 60, 1976. [\[pdf\]](#)
- [83] **Theory of Bound States and Ionization Equilibrium in Plasmas and Solids** (Ebeling, W., Kraeft, W. D., and Kremp, D.), Akademie-Verlag Berlin, 1976. [\[pdf\]](#)
- [82] **Interionic Interactions and Thermodynamics of Strong Electrolytes** (Bich, E., Ebeling, W., and Krienke, H.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 257, pp. 549-562, 1976. [\[pdf\]](#)
- [81] **Bound State Effects in Quantum Transport Theory** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 488, pp. 350-358, 1976. [\[pdf\]](#) [\[doi\]](#)
- [80] **Physikalisch-Chemische Grundlagen der Strukturbildung bei Entwicklungsprozessen** (Ebeling, W.), *Chapter in Struktur und Prozess (Wessel, K.-F., ed.)*, Deutscher Verlag der Wissenschaften, pp. 151-171, 1976. [\[pdf\]](#)
- [79] **Entwicklung als Folge qualitativer Veränderungen durch die Dialektik von Stabilität und Instabilität** (Ebeling, W. and Bordel, W.), *Chapter in Philosophische und ethische Probleme der Biowissenschaften, IV. Kühlungsborner Kolloquium (Geisler, E., Ley, H., Scheler, W., Kosing, A., eds.)*, Akademie-Verlag, Berlin, pp. 249-253, 1976. [\[pdf\]](#)

1975

- [78] **Quantum statistics of two component systems of charged particles** (Ebeling, W., Kraeft, W. D., and Kremp, D.), *Chapter in Proceedings of the International Research Symposium on Statistical Physics*, Calcutta, pp. 119-123, 1975.
- [77] **Phase transitions in electron-hole plasmas** (Kremp, D., Ebeling, W., and Kraeft, W. D.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 69, pp. K59–K62, 1975. [\[pdf\]](#) [\[doi\]](#)
- [76] **Zur Bestimmung der zwischenionalen Wechselwirkungen in Elektrolyten aus thermodynamischen Daten.** (Krienke, H., Czerwon, H.J., and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock. Mathematisch-Naturwissenschaftliche Reihe*, volume 24, pp. 671-679, 1975. [\[pdf\]](#)
- [75] **Zur Geschichte der Elektrolytforschung an der Universität Rostock.** (Jakubowski, P., Mahnke, R., Rogmann, E., and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock.*

Gesellschafts- und Sprachwissenschaftliche Reihe, volume 25, pp. 111-119, 1975. [\[pdf\]](#)

- [74] **Elektrolytische Flüssigkeiten** (Ebeling, W. and Falkenhagen, H.), *Chapter in Grimsehl Lehrbuch der Physik*, Teubner-Verlag Leipzig, volume IV, pp. 470-504, 1975. [\[pdf\]](#)
- [73] **Electrolytic conductance and short-range ionic interactions for aqueous alkali halides** (Ebeling, W. and Feistel, R.), *In Chemical Physics Letters*, volume 36, pp. 404 - 406, 1975. [\[pdf\]](#) [\[doi\]](#)
- [72] **Theory of the Ionization Equilibrium in Dense Semiconductor Plasmas** (Bartsch, G. P. and Ebeling, W.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 15, pp. 25-33, 1975. [\[pdf\]](#) [\[doi\]](#)

1974

- [71] **Über das Verhältnis der physikalischen Bewegungsform der Materie zu den anderen Bewegungsformen** (Albrecht, E., Asser, G., Ebeling, W., Fischer, W., Köhler, K. H., Völz, H., and Vogel, H.), *Chapter in Streitbarer Materialismus und gegenwärtige Naturwissenschaft (Buhr, M., ed.)*, Verlag Marxistischer Blätter GmbH Frankfurt/Main, volume 33, pp. 38-47, 1974. [\[pdf\]](#)
- [70] **Zur Theorie der elektrischen Leitfähigkeit von Elektrolyten höherer Konzentration** (Geisler, D., Kraeft, W. D., Sändig, R., and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock. Mathematisch-Naturwissenschaftliche Reihe*, volume 23, pp. 903-910, 1974. [\[pdf\]](#)
- [69] **Elektrolyte** (Ebeling, W. and Falkenhagen, H.), *Chapter in* , Vieweg, pp. 489-500, 1974. [\[pdf\]](#)
- [68] **Statistical Derivation of Mass-Action Law for Interacting Gases and Plasmas** (Ebeling, W.), *In Physica*, volume 73, pp. 573-584, 1974. [\[pdf\]](#) [\[doi\]](#)
- [67] **Kinetics of Molecular Replication Processes with Selection Character** (Ebeling, W. and Feistel, R.), *In Studia Biophysica*, volume 46, pp. 183-195, 1974. [\[pdf\]](#)

1973

- [66] **Quantum Kinetic Equations for a Nonideal Gas and a Nonideal Plasma** (Klimontovich, Y. L. and Ebeling, W.), *In Soviet Physics JETP*, volume 36, pp. 476-481, 1973. [\[pdf\]](#)
- [65] **Neuere Ergebnisse der Theorie elektrolytischer Lösungen** (Ebeling, W. and Feistel, R.), *In Physikalische Gesellschaft der Deutschen Demokratischen Republik*, pp. 157-166, 1973. [\[pdf\]](#) [\[doi\]](#)
- [64] **Theory of the Ionization Equilibrium in Dense Plasmas** (Ebeling, W. and Sändig, R.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 483, pp. 289-305, 1973. [\[pdf\]](#) [\[doi\]](#)

1972

- [63] **Quantum Kinetic-Equations for an Imperfect Gas and a Nonideal Plasma** (Klimontovich, Y. L., and Ebeling, W.), *In ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI*, volume 63, pp. 905-917, 1972. [\[pdf\]](#)
- [62] **Hydrodynamische Bewegungsbeschreibung von geladenen Teilchen im schwachen ionisierten Plasma** (Klimontovich, Y. L. and Ebeling, W.), *In Zeitschrift für experimentelle und theoretische Physik*, sowjetische Akademie der Wissenschaft, volume 63, pp. 905-917, 1972. [\[pdf\]](#)
- [61] **Quantum Kinetic-Equations for an Imperfect Gas and a Nonideal Plasma** (Klimontovich, Y. L., and Ebeling, W.), *In Zhurnal Eksperimentalnoi I Teoreticheskoi Fiziki*, volume 63, pp. 905-917, 1972. [\[pdf\]](#)
- [60] **Theory of Ion-Pair Formation in Electrolytes** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 249, pp. 140-142, 1972. [\[pdf\]](#)

1971

- [59] **Ionization Equilibrium and Stability of a Quantum Plasma** (Sändig, R. and Ebeling, W.), *In High Temperature*, volume 9, pp. 1197-1199, 1971. [\[pdf\]](#)
- [58] **Quantum Statistics of Ionization and Shielding Effects in Non-Degenerate Moderately Doped Semiconductors** (Ebeling, W.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 46, pp. 243-255, 1971. [\[pdf\]](#) [\[doi\]](#)
- [57] **Quantum-statistical second virial coefficient and scattering theory** (Kremp, D., Kraeft, W. D., and Ebeling, W.), *In Physica*, volume 51, pp. 146 - 164, 1971. [\[pdf\]](#) [\[doi\]](#)
- [56] **Equilibrium Properties of Ionized Dilute Electrolytes** (Falkenhagen, H. and Ebeling, W.), *Chapter in Ionic Interactions - From Dilute Solutions to Fused Salts: Equilibrium and Mass*

- Transport* (Petrucci, S., Loebel, E. M., eds.), Academic Press, Inc., volume 22, pp. 1-59, 1971. [pdf]
- [55] **On the Possibility of Diffusion Instabilities in Non-Aqueous Weak Electrolytes** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 247, pp. 340-342, 1971. [pdf]
- [54] **A Generalized Debye-Huckel Theory of Concentrated Electrolytes** (Ebeling, W. and Krienke, H.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 248, pp. 274-276, 1971. [pdf]
- [53] **Quantum Statistical Fugacity Expansions for Partially Ionized Plasmas in Equilibrium** (Bartsch, G. P. and Ebeling, W.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 11, pp. 393-403, 1971. [pdf] [doi]
- [52] **Mass Transport Properties of Ionized Dilute Electrolytes** (Falkenhagen, H., Ebeling, W., and Kraeft, W. D.), *Chapter in Ionic Interactions - From Dilute Solutions to Fused Salts: Equilibrium and Mass Transport* (Petrucci, S., Loebel, E. M., eds.), Academic Press, Inc., volume 22, pp. 61-116, 1971. [pdf]

1970

- [51] **Statistical Theory of Thermodynamic Behavior of Solutions of Tetraalkylammonium Ions** (Ulbricht, H. and Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 243, pp. 129-132, 1970. [pdf]
- [50] **Reversibilität und Irreversibilität als physikalisches Problem in philosophischer Sicht.** (Kremp, D., Parthey, H., Ulbricht, H., and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock. Gesellschaftswissenschaftliche Reihe*, volume 19, pp. 127-138, 1970. [pdf]
- [49] **Zur Hypothesenbildung in der physikalischen Forschung** (Ebeling, W.), *In Die Technik*, volume 25, pp. 754, 1970. [pdf]
- [48] **Thermodynamik irreversibler Prozesse und Verfahrenstechnik.** (Ebeling, W.), *In Wissenschaftliche Thesen der Deutsche Akademie der Wissenschaften*, volume 3, pp. 31-39, 1970. [pdf]
- [47] **Zustandsgleichung und Ionisationsgleichgewicht des Wasserstoffplasmas** (Ebeling, W., Kelbg, G., and Sändig, R.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 10, pp. 507-525, 1970. [pdf] [doi]
- [46] **Quantum Statistical Second Virial Coefficient for Real Gases and Plasmas** (Ebeling, W., Kraeft, W. D., and Kremp, D.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 10, pp. 237-263, 1970. [pdf] [doi]
- [45] **Quantenstatistische Zustandsgleichung von stark ionisierten Wasserstoffplasmen mittlerer Dichte** (Rohde, K., Kelbg, G., and Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 480, pp. 80-87, 1970. [pdf] [doi]
- [44] **Zur Hypothesenbildung in der physikalischen Forschung** (Ebeling, W.), *Chapter in Problemtypen bei der Hypothesen- und Prognosebildung* (Parthey, H., ed.), Rostocker Philosophische Manuskripte, pp. 221-229, 1970. [pdf]

1969

- [43] **Complex representation of the quantumstatistical second virial coefficient** (Kraeft, W. D., Ebeling, W., and Kremp, D.), *In Physics Letters A*, volume 29, pp. 466 - 467, 1969. [pdf] [doi]
- [42] **Theory of conductivity of associating electrolytes** (Kraeft, W. D. and Ebeling, W.), *In Zeitschrift Für Physikalische Chemie-Leipzig*, volume 240, pp. 141-143, 1969. [pdf]
- [41] **Coulomb interaction and ionization equilibrium in partially ionized plasmas** (Ebeling, W.), *In Physica*, volume 43, pp. 293-306, 1969. [pdf] [doi]
- [40] **Statistical thermodynamics of systems of chemically reacting particles** (Ebeling, W.), *In Zeitschrift Für Physikalische Chemie-Leipzig*, volume 240, pp. 265-278, 1969. [pdf]
- [39] **DYNAMIC BEAM PROFILE MEASUREMENT UTILIZING SYNCHROTRON RADIATION** (Ebeling, W. and Bennett, G. W.), *In Bulletin of the American Physical Society*, volume 14, pp. 236-&, 1969. [pdf]
- [38] **Zur Quantenstatistik der Bindungszustände in Plasmen. II Berechnung der Cluster-Integrale** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 477, pp. 392-401, 1969. [pdf] [doi]
- [37] **Zur Quantenstatistik der Bindungszustände in Plasmen. I Cluster-Entwicklungen** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 477, pp. 383-391, 1969. [pdf] [doi]

- [36] **Zur statistischen Theorie der Diffusionsprozesse in kondensierten Systemen** (Kowalenko, N. P. and Ebeling, W.), *In Physica Status Solidi (b)*, WILEY-VCH Verlag, volume 30, pp. 533-540, 1968. [[pdf](#)] [[doi](#)]
- [35] **Statistical thermodynamics of electrolytic solutions with large bjerrum parameters .2** (Kelbg, G., Ebeling, W., and Krienke, H.), *In Zeitung für Physikalische Chemie-Leipzig*, volume 238, pp. 76-88, 1968. [[pdf](#)]
- [34] **On the equation of state of fully ionized quantum plasmas** (Hoffmann, H. J. and Ebeling, W.), *In Physica*, volume 39, pp. 593 - 598, 1968. [[pdf](#)] [[doi](#)]
- [33] **Theory of bjerrum ion association in electrolytes** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 238, pp. 400-402, 1968. [[pdf](#)]
- [32] **Equation of state and Saha equation of partially ionized plasmas** (Ebeling, W.), *In Physica*, volume 38, pp. 378 - 388, 1968. [[pdf](#)] [[doi](#)]
- [31] **The exact free energy of low density quantum plasmas** (Ebeling, W.), *In Physica*, volume 40, pp. 290 - 292, 1968. [[pdf](#)] [[doi](#)]
- [30] **Zur statistischen Theorie der Bindungszustände in Plasmen und Elektrolyten kleiner Konzentration** (Ebeling, W.), Universität Rostock, 1968. [[pdf](#)]
- [29] **Quantenstatistik des Hochtemperatur-Plasmas im thermodynamischen Gleichgewicht. II. Die freie Energie im Temperaturbereich 106 bis 108 °K** (Hoffmann, H. J. and Ebeling, W.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 8, pp. 43-56, 1968. [[pdf](#)] [[doi](#)]
- [28] **Ableitung der freien Energie von Quantenplasmen kleiner Dichte aus den exakten Streuphasen** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 477, pp. 33-39, 1968. [[pdf](#)] [[doi](#)]
- [27] **Zur freien Energie von Quantenplasmen kleiner Dichte** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 476, pp. 315-317, 1968. [[pdf](#)] [[doi](#)]

- [26] **Hydrodynamische Näherungen für stark ionisierte Plasmen** (Ulbricht, H. and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock. Mathematisch-Naturwissenschaftliche Reihe*, volume 16, pp. 857-868, 1967. [[pdf](#)]
- [25] **A Convergent Expression for the Free Energy of Partially Ionized Plasmas** (Ebeling, W.), *In Phenomena in Ionized Gases, 1967. Proceedings of the Eighth International Conference*, pp. 274, 1967. [[pdf](#)]
- [24] **Quantenstatistik des Hochtemperatur-Plasmas im thermodynamischen Gleichgewicht** (Ebeling, W., Hoffmann, H. J., and Kelbg, G.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 7, pp. 233-248, 1967. [[pdf](#)] [[doi](#)]
- [23] **Zur statistischen Theorie der Diffusion geladener Teilchen** (Ebeling, W.), *In Beiträge aus der Plasmaphysik*, WILEY-VCH Verlag, volume 7, pp. 11-22, 1967. [[pdf](#)] [[doi](#)]
- [22] **Statistische Thermodynamik der gebundenen Zustände in Plasmen** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 474, pp. 104-112, 1967. [[pdf](#)] [[doi](#)]

- [21] **On the Conductance of Symmetrical Electrolytes** (Ebeling, W., Kraeft, W. D., and Kremp, D.), *In The Journal of Physical Chemistry*, volume 70, pp. 3338-3339, 1966. [[pdf](#)] [[doi](#)]
- [20] **Statistische Theorie der Ionen-Dipol-Lösung .3. dielektrische Eigenschaften** (Ebeling, W. and Kraeft, W. D.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 233, pp. 388-402, 1966. [[pdf](#)]
- [19] **Zur statistischen Thermodynamik elektrolytischer Lösungen mit großem Bjerrum-parameter** (Ebeling, W. and Kelbg, G.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 233, pp. 209-230, 1966. [[pdf](#)]
- [18] **Statistische Theorie der Ionen-Dipol-Lösungen: I. Molekulare Verteilungsfunktionen: Stationäre Leitfähigkeit** (Ebeling, W., Kraeft, W. D., and Ratajewicz, W.), *In Zeitschrift für Physikalische Chemie-Leipzig*, volume 232, pp. 205-227, 1966. [[pdf](#)]
- [17] **Zur Theorie der Leitfähigkeit von Elektrolyten und schwach ionisierten Plasmen. II** (Kremp,

D., Kraeft, W. D., and Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 473, pp. 246-252, 1966. [\[pdf\]](#) [\[doi\]](#)

- [16] **Molekulare Verteilungsfunktionen klassischer Systeme geladener Teilchen im thermodynamischen Gleichgewicht** (Ebeling, W., Kelbg, G., and Schmitz, G.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 473, pp. 29-41, 1966. [\[pdf\]](#) [\[doi\]](#)
- [15] **Zur Deutung der Abhängigkeit der elektrolytischen Leitfähigkeit von der Konzentration neutraler Komponenten** (Ebeling, W., Falkenhagen, H., and Kraeft, W. D.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 473, pp. 15-28, 1966. [\[pdf\]](#) [\[doi\]](#)
- [14] **Zur freien Energie von Systemen geladener Teilchen** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 472, pp. 415-416, 1966. [\[pdf\]](#) [\[doi\]](#)

1965

- [13] **Statistical derivation of diffusion equations according to the Zwanzig method** (Falkenhagen, H. and Ebeling, W.), *In Physical Letters A*, volume 15, pp. 131-132, 1965. [\[pdf\]](#) [\[doi\]](#)
- [12] **Die Gesetze der Makrophysik und ihr Verhältnis zur Quantenmechanik** (Ebeling, W.), *In Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin*, pp. 593-595, 1965. [\[pdf\]](#)
- [11] **Zur Theorie der electrophoretischen Effekten in Ionenlösungen.** (Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock. Mathematisch-Naturwissenschaftliche Reihe*, pp. 271-275, 1965. [\[pdf\]](#)
- [10] **Statistisch-mechanische Ableitung von verallgemeinerten Diffusionsgleichungen** (Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 471, pp. 147-159, 1965. [\[pdf\]](#) [\[doi\]](#)

1964

- [9] **Statistische Mechanik der irreversiblen Prozesse in Lösungen wechselwirkender Teilchen. II** (Ebeling, W.), *In Zeitschrift für physikalische Chemie*, volume 225, pp. 15-25, 1964. [\[pdf\]](#)
- [8] **Reversibilität und Irreversibilität in der Physik.** (Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock*, volume 13, pp. 185-191, 1964. [\[pdf\]](#)

1963

- [7] **Zur kinetischen Theorie schwach ionisierter Plasmen und elektrolytischer Lösungen** (Ebeling, W.), 1963. [\[pdf\]](#)
- [6] **Hydrodynamic Description of the Motion of a Charged Particle in a Weakly Ionized Plasma** (Klimontovich, Y. L. and Ebeling, W.), *In Journal of Experimental and Theoretical Physics*, volume 16, pp. 104, 1963. [\[pdf\]](#)
- [5] **Die Grundgleichungen der Theorie homogener elektrolytischer Lösungen** (Falkenhagen, H. and Ebeling, W.), *In Berichte der Akademie der Wissenschaften Berlin*, pp. 616-620, 1963. [\[pdf\]](#)
- [4] **Statistische Mechanik der irreversiblen Prozesse in Lösungen wechselwirkender Teilchen.** (Ebeling, W.), *In Zeitschrift für Physikalische Chemie*, volume 224, pp. 321-330, 1963. [\[pdf\]](#)
- [3] **Zur kinetischen Theorie schwach ionisierter Plasmen im Magnetfeld** (Falkenhagen, H. and Ebeling, W.), *In Annalen der Physik*, WILEY-VCH Verlag, volume 465, pp. 347-359, 1963. [\[pdf\]](#) [\[doi\]](#)

1962

- [2] **A hydrodynamic description of the motion of charged particles in a weakly ionized plasma** (Klimontovich, Y. L. and Ebeling, W.), *In Zeitschrift für experimentelle und theoretische Physik*, sowjetische Akademie der Wissenschaft, volume 43, pp. 146-152, 1962. [\[pdf\]](#)
- [1] **Hydrodynamische Näherungen in der Theorie stark bzw. schwach ionisierter Plasmen** (Klimontovich, Y. L. and Ebeling, W.), *In Wissenschaftliche Zeitschrift der Universität Rostock, Mathematisch-Naturwissenschaftliche Reihe*, pp. 355-363, 1962. [\[pdf\]](#)