

**Zeitschrift:** Helvetica Physica Acta

**Band:** 67 (1994)

## **Inhaltsverzeichnis**

### **Nutzungsbedingungen**

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

### **Conditions d'utilisation**

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

### **Terms of use**

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

**Download PDF:** 17.03.2025

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

# HELVETICA PHYSICA ACTA

VOLUMEN 67, 1994

CONTENTS – INHALTSVERZEICHNIS – TABLE DES MATIÈRES

## *Fascicle 1*

31. 3. 1994

Helffer, B., Sjöstrand, J.: Erratum on the Paper Helv. Phys. Acta 65 (1992) 748: Semiclassical Expansions of the Thermodynamic Limit for a Schrödinger Equation. II. The Double Well Case. . . . .	1
Sewell, G. L.: Quantum Plasma Model with Hydrodynamical Phase Transition . . .	4
Newton, R. G.: Comment on "Normalization of Scattering States, Scattering Phase Shifts, and Levinson Theorem" by N. Poliatzky [Helv. Phys. Acta 66, 241-263 (1993)] . . . . .	20
Emery, S., Piguët, O.: Symmetries on the Chern-Simons Theory in the Axial Gauge, Manifold with Boundary . . . . .	22
Chayes, L., Klein, D.: A Generalization of Poisson Convergence to "Gibbs Con- vergence" with Applications to Statistical Mechanics . . . . .	30
Brydges, D. C., Keller, G.: Correlation Functions of General Observables in Dipole- Type Systems I: Accurate Upper Bounds . . . . .	43

## *Fascicle 2*

16. 5. 1994

Ivanov, A.: On the Covering Property in Physical Theories . . . . .	117
Aaberge, T.: On the Size of the State-Space for Systems of Quantum Particles with Spin . . . . .	127
Al-Naggar, I., Pearson, D.B.: A New Asymptotic Condition for Absolutely Continuous Spectrum of the Sturm-Liouville Operator on the Half-Line . . . . .	144
Boutet de Monvel-Berthier, A., Purice, R.: The Dirac Evolution Equation in the Presence of an Electromagnetic Wave . . . . .	167
Zapatrin, R. R.: Quantum Logic without Negation . . . . .	188
Danilov, A. V., Kubatkin, S. E., Landau, I. L., Parshin, I. A., Rinderer, L.: Insu- lating Phase of Mercury in Cold-Deposited Films . . . . .	203
Elmer, F. J.: Spin-Wave Patterns and Spin-Wave Turbulence . . . . .	205
Soares, V., Houch, D., Rinderer, L.: Freezing of Supercooled Refractory Metals . .	207
Castro, H., Fluckiger, B., Loude, J.-F., Holguin, E., Rinderer, L.: The Exponential Critical State of High-Tc Ceramics . . . . .	209
Kafader, U., Sirringhaus, H., Ramm, J., Dommann, A., von Känel, H.: <i>In Situ</i> DC-Hydrogen Plasma Cleaning of Si(111) Surfaces . . . . .	211

Elmer, F. J.: Nonlinear Dynamics of Atomic Force Microscopes . . . . .	213
Grütter, Ch., Trittbach, R., Bilgram, J. H.: Surface Melting of Gallium Single Crystals . . . . .	215
Schaer, S. F.: Coaxial Plasma Gun in the High Density Regime and Injection into a Helical Field . . . . .	217
Mi, J., Letourneau, P., Ganière, J.-D., Gailhanou, M., Dutoit, M., Dubois, C., Dupuy, J. C., Brémond, G.: Improvement of Crystal Quality of Epitaxial Silicon-Germanium Alloy Layers by Carbon Additions . . . . .	219
Spring, R., Lüthy, W., Weber, H. P.: Individual Holographic Optical Element for Output-Emission Improvement of a Diode-Laser Array . . . . .	221
Bopp, M. A., Tarrach, G., Meixner, A. J., Zschokke-Gränacher, I.: Abbildung einer stehenden evaneszenten Welle mit optischer Nahfeld-Mikroskopie . . . . .	223
Palberg, T., Mönch, W., Bitzer, F., Leiderer, P., Belloni, L., Bellini, T., Piazza, R.: Charge Dependent Freezing Line of Yukawa Suspensions . . . . .	225
Cavaco, C., Schurtenberger, P.: Dynamics of Giant Polymer-Like Microemulsions . . . . .	227
Kallenbach, R., Wurz, P., Gubler, L., Gonin, M., Bochsler, P.: 360° Panoramic View Isochronous Time-of-Flight Mass Spectrometer . . . . .	229
Eliasson, B., Killer, E.: Hydrogenation of CO <sub>2</sub> . . . . .	231
Egelhaaf, S. U., Bauer, H. H., Merkle, H. P., Schurtenberger, P.: Understanding Problems from 'Real Life' with Complex Fluid Physics: Biocolloid Stability and Aggregation . . . . .	233
Reimann, P.: Stabilization of Transient Chaos by Noise . . . . .	235

*Fascicle 3*

30. 6. 1994

Daumer, F.: Equations de Hartree-Fock dans l'Approximation du Tight-Binding . . . . .	237
Salmhofer, M.: Lee-Yang Measures . . . . .	257
Moritsch, O., Schweda, M.: On the Algebraic Structure of Gravity with Torsion including Weyl Symmetry . . . . .	289

*Fascicle 4*

31. 8. 1994

Yee, K.: Monopoles and Quark Confinement . . . . .	345
Colatto, L. P.: Some Remarks on the Algebra of Supercharges in $D=(1+2)$ . . . . .	357
Gangopadhyaya, A., Panigrahi, P. K., Sukhatme, U. P.: Inter-Relations of Solvable Potentials . . . . .	363
Goudsmit, P. F. A., Leisi, H. J., Matsinos, E.: The Low-Energy Pion-Nucleon Interaction . . . . .	369
Barut, A. O., Moore, D. J., Piron, C.: Spacetime Models from the Electromagnetic Field . . . . .	392
Baleanu, D.: Spinning Particles in the Euclidean Taub-Nut Space . . . . .	405
Teitelman, M.: Spin-Wave-Spin-Wave Interaction and the Thermodynamics of the Heisenberg Spin Chain . . . . .	419

Kraus, E.: Asymptotic Normalization Properties and Mass Independent Renormalization Group Functions . . . . .	424
Isar, A.: The Harmonic Oscillator with Dissipation within the Theory of Open Quantum Systems . . . . .	436

*Fascicle 5*  
30. 9. 1994

Quiros, M.: Field Theory at Finite Temperature and Phase Transitions . . . . .	451
--	-----

*Fascicle 6*  
29. 10. 1994

Gerisch, T.: Local Perturbations and Limiting Gibbs States of Quantum Lattice Mean-Field Systems . . . . .	585
Khvedelidze, A., Pervushin, V.: Zero Modes of Gauss'Constraint in Gaugeless Reduction of Yang – Mills Theory . . . . .	610
Bonanno, A., Droz, S., Israel, W., Morsink, S. M.: Black Holes: the Inside Story . . . . .	626
Bacry, H.: La non-localisabilité du photon, Clef de voûte d'une refonte de la physique . . . . .	632
Fassari, S., Inglese, G.: On the Spectrum of the Harmonic Oscillator with a $\delta$ -Type Perturbation . . . . .	650
Triantaphyllou, G.: A New Paradigm for the Fermion Generations . . . . .	660
Poliatzky, N.: Normalization of Scattering States and Levinson's Theorem: Reply to a Comment by R.G. Newton [Helv. Phys. Acta 67, 2 (1994)] . . . . .	683

*Fascicle 7*  
16. 12. 1994

Tashkova, M., Donev, S.: On the Relativistic Tunneling and Above Barrier Transmission in Some One-Dimensional Structured Barrier Systems . . . . .	691
Ferrari, F.: Gauge Field Theories on Riemann Surfaces . . . . .	702
Joos, H., Azakov, S. I.: The Geometric Schwinger Model on the Torus II . . . . .	723
Poberii, E. A.: Nonmetricity Driven Inflation . . . . .	745
Lüthi, R., Meyer, E., Haefke, H., Howald, L., Güntherodt, H.J.: Nanosled Experiments: Determination of Dissipation and Cohesive Energies of C60 with UHV-SFM . . . . .	755
Eng, L. M., Küpfer, M., Seuret, Ch., Günther, P.: Second-Harmonic Studies of Pure DCANP and Mixed DCANP/CdALB Films at the Air/Water Interface . . . . .	757
Hild, S., Gutmannsbauer, W., Lüthi, R., Haefke, H., Güntherodt, H.-J.: Morphological Changes During Stretching of Polypropylene Films Studied by Scanning Force Microscopy . . . . .	759
Meier, J., Blondel, A., Doudin, B., Ansermet, J.-Ph.: Magnetic Properties of Nanosized Wires . . . . .	761
Stoll, E. P., Baratoff, A., Mangili, A., Maric, D.: Atom and Electron Motions on the Si(001) Surface Generated by First Principles Molecular Dynamics . . . . .	763

Ammann, C.: Etude de Microréseaux Supraconducteurs . . . . .	765
Liviotti, E.: Transmission through One-Dimensional Periodic Media . . . . .	767
Gerteisen, E. A., Egli, W., Eliasson, B.: Vorticity Formation in an Electrostatic Precipitator . . . . .	769
Hirt, A., Duval, B. P., Moret, J.-M., Pochelon, A., Tonetti, G., Weisen, H.: MHD Activity During H-Mode Discharges on the TCV Tokamak . . . . .	771
Robadey, J., Marti, U., Filipowicz, F., Hessler, T., Martin, D., Morier-Genoud, F., Silva, P. C., Magnenat, Y., Reinhart, F. K., Jouneau, P.-H., Bobard, F.: Characterization of High Density Arrays of Quantum Wires by Photoluminescence and TEM . . . . .	773
Filipowicz, F., Marti, U., Robadey, J., Martin, D., Morier-Genoud, F., Silva, P. C., Magnenat I., Ruterana, P., Jouneau, P.-H., Bobard, F., Reinhart, F. K.: Fabrication and Characterization of Quantum Wires in Optical Waveguide Structures . . . . .	775
Conti, D., Bodek, K., Kayser, H. K., Lang, J., Navert, S., Naviliat, O., Reichert, E., Sromicki, J., Steffens, K.-H., Steigerwald, M., Stephan, E., Zejma, J.: Spin Dependence in Scattering of 14 MEV Electrons From Lead Nuclei . . . . .	777
Piller, C., Huot, O., Jacot-Guillarmod, R., Mulhauser, F., Schaller, L. A., Schellenberg, L., Schneuwly, H., Tresch, S., Thalmann, Y.-A., Werthmüller, A.: Muon Transfer Rates to Helium in H <sub>2</sub> + He + Ar Gas Mixtures: A New Evaluation . . . . .	779
Thalmann, Y.-A., Huot, O., Jacot-Guillarmod, R., Mulhauser, F., Piller, C., Schaller, L. A., Schellenberg, L., Schneuwly, H., Tresch, S., Werthmüller, A.: Muon Capture Ratios in Ar + Ne Mixtures . . . . .	781
Werthmüller, A., Huot, O., Jacot-Guillarmod, R., Mulhauser, F., Piller, C., Schaller, L. A., Schellenberg, L., Schneuwly, H., Thalmann, Y.-A., Tresch, S.: Muon Transfer Rates from Thermalized $\mu p$ and $\mu d$ Atoms to Oxygen . . . . .	783

*Fascicle 8*  
15. 2. 1995

Sen, D., Basu, A. N., Sengupta, S.: Bohr's Complementarity Principle – Its Relation to Quantum Mechanics . . . . .	785
Degiovanni, P.: Equations de Moore et Seiberg, Théories Topologiques et Théorie de Galois . . . . .	799
Khuri, R.R.: Black Holes and Solitons in String Theory . . . . .	884
Fierz, M., Fierz, M.: Zur Genauigkeit von Newtons Messung Seiner Interferenzringe . . . . .	923
Bonneau, G.: B.R.S. Renormalization of Some On-Shell Closed Algebras of Symmetry Transformations. The Example of Supersymmetric Non-Linear $\sigma$ Models: 1) The N=1 Case . . . . .	930
Bonneau, G.: B.R.S. Renormalization of Some On-Shell Closed Algebras of Symmetry Transformations: 2) N=2 and 4 Supersymmetric Non-Linear $\sigma$ Models . . . . .	954