

AMP NEWS BULLETIN

Progress Report

1. In spite of the small number of people interested in getting the Reports on Mathematical Physics Pergamon Press has agreed to give us a 50% reduction so that the annual subscription rate for members of the AMP is now \$ 41.50. Please inform us if you want to benefit of this deal.
2. The statutes of AMP are getting into their final form and AMP will be established officially very soon. We will then officially solicit for membership.

W. Thirring

Preprints

- C.A. Burnap, The Particle Structure of Boson Quantum Field Theory Models, Harvard University
 A. Klemm, V.A. Zagrebener, A Compressible Dicke Model (Exact Solutions), Dubna
 B.L. Aneva, S.G. Mikhov, D.T. Stoyanov, On Some Properties of the Conformal Superalgebra Representations, Dubna
 B.S. Getmanov, Soliton Bound States in the Φ_2^4 Field Theory (in Russian), Dubna
 B. Jancewicz, Operator Density Current and Relativistic Localization Problem, Wroclaw, Poland
 P.M. Alberti, A Σ -Property for positive linear Forms on C^* -algebras, Leipzig
 P. Nath, R. Arnowitt, Supergravity and Gauge Supersymmetry, Harvard University
 E. Brezin, J.C. Le Guillou, J. Zinn-Justin, Perturbation Theory at Large Order I, The Φ^{2N} Interaction, Universite Paris VI
 K. Schmüdgen, An Example of a Positive Polynomial Which Is Not a Sum of Squares of Polynomials, a Positive but Not Strongly Positive Functional, Leipzig
 R.N. Hill, Lower Bounds to Eigenvalues in the Few Body Problem, Univ. of Delaware, Newark, Delaware
 Ch. Duval, The General Relativistic Dirac Pauli Particle: An Underlying Classical Model, CNRS, Marseille
 C. Becchi, A. Rouet, R. Stone, Renormalizable Models with Broken Symmetries, CNRS, Marseille
 A. Grossmann, R. Seiler, Heat Equation on Phase Space and the Classical Limit of Quantum Mechanical Expectation Values, CNRS, Marseille
 D.W. Robinson, The Approximation of Flows, CNRS, Marseille
 J.M. Souriau, Geometric Symplectique et Physique Mathematique (in French), CNRS, Marseille
 J.M. Souriau, Interpretation Geometrique des Etats Quantiques (in French), CNRS, Marseille
 C. Becchi, A. Rouet, R. Stone, Gauge Field Models, CNRS, Marseille
 A. Grossmann, Parity Operator and Quantization of δ -Functions, CNRS, Marseille
 H. Cycon, K.E. Hellwig, Conditional Expectations in Generalized Probability Theory, Berlin
 A. Bassetto, R. Soldati, M. Toller, S. Zerbin, The Second Virial Coefficient from the Scattering Operator in Classical Mechanics, Trento, Italy
 S.L. Woronowicz, Positive Maps of Low Dimensional Matrix Algebras, CNRS, Marseille
 E. Chen, Markov Systems of Imprimitivity, Leuven, Belgium
 M. Davis, P.J.E. Peebles, On the Integration of the BBGKY Equation for the Development of Strongly Non Linear Clustering in an Expanding Universe, Harvard College Observatory
 I.E. Segal, Interacting Quantum Fields and the Chronometric Principle, MIT, Cambridge, Mass.
 G. Pocsik, Quark Confinement and Conservation Laws in bilocal Field Theories, Budapest
 R. Weiner, M. Weström, Diffusion of Heat in Nuclear Matter and Preequilibrium Phenomena, Marburg
 N. Masuda, R. Weiner, Study of Proton-Nucleus Collision at High Energy Based on the Hydrodynamical Model, Marburg
 E.B. Davies, Dilation of Completely Positive Maps, Information and Quantum Measurement, Oxford, England
 V. Kurak, Conformal Invariant Quantum Field Theory and Composite Field Operators, PUC, Rio de Janeiro
 E. Mourre, Famille de Transformations Spectrales, CNRS, Marseille
 G. Barucchi, T. Regge, Conformal Properties of a Class of Exactly Solvable N Body Problems in Space Dimension One, Torino, Italy
 J.M. Combes, The Born Oppenheimer Approximation, CNRS, Marseille
 H. Cycon, K.E. Hellwig, Conditional Expectations in Generalized Probability Theory, Berlin
 C.A. de Moura, Continuity of the Direct and Inverse Problems in One-dimensional Scattering Theory and Numerical Solutions of the Inverse Problem, Centro Brasileiro de Pesquisas Fisicas
 J. Ginibre, Spectral and Scattering Theory of the Schrödinger Equation for Three Body Systems, Orsay
 D. Babbitt, L. Thomas, Ground State Representation of the Infinite One-dimensional Heisenberg Ferromagnet II: Completeness and Orthogonality
 K.J. Barnes, I.J. Ketley, D.A. Nicole, P.J. O'Donnell, Non Linear Chiral Models and Many Dimensional Solitons Southampton, England
 J.W. Moffat, Unified Gauge Theory of Gravitation and Elementary Particle Fields, Toronto
 B.S. Getmanov, N-Soliton States in the Two Dimensional Polynomial Field Theories, Dubna
 W. Rühl, B.C. Yunn, Representations of the Universal Covering Group of the Conformal Group Belonging to the Continuous Principal Series, Quantum Fields with a Multiplicative Structure, Kaiserslautern

- B. Schroer, Quantum Field Theory of Kinks in Two-dimensional Space-Time, CERN
 N.K. Nielsen, B. Schroer, Topological Fluctuations and Breaking of Chiral Symmetry in Gauge Theories Involving Massless Fermions, CERN
 T.E.O. Ericson, L. Hambro, The Absorptive Line Shape of Hadronic Atoms, CERN
 R. Friedberg, T.D. Lee, Fermion Field Nontopological Solitons I, Columbia Univ., New York
 J.M. Souriau, Construction Explicite de l'Indice de Maslov Applications, CNRS, Marseille
 I.T. Todorov, Dynamics of Relativistic Point Particles as a Problem with Constraints, Dubna
 I.L. Bogolubsky, Oscillating Particle Like Solutions of Nonlinear Klein Gordon Equation, Dubna
 G.L. Sewell, Metastable States of Quantum Lattice Systems, Queen Mary College, London
 Z. Haba, J. Lukierski, Stochastic Description of Extended Hadrons, ZiF, Bielefeld
 M. Hitsuda, H. Watanabe, On Stochastic Integrals with Respect to an Infinite Number of Brownian Motions and its Applications, ZiF, Bielefeld
 H. Watanabe, A Note on Stochastic Parabolic Equations, ZiF, Bielefeld
 P.L. Torres, A Stochastic Process in Non-Equilibrium Quantum Statistical Mechanics, A Classical Markov Process in Non-Equilibrium Quantum Statistical Mechanics, Queen Mary College
 J.P. Gazeau, M.Cl. Dumont Lepage, A. Ronveaux, Exponential of Gel'fand Lattices and Irreducible Representations of $U(n)$, Universite de la Paix Namur, Belgium
 G. Pocsik, Quark Confinement and Relativistic Oscillator Models in Bilocal Field Theories, Budapest
 U. Cattaneo, Splitting and Representation Groups for Polish Groups, Kaiserslautern
 The Quantummechanical Poincare and Galilei Groups
 A. Kishimoto, Equilibrium States of a Semi-quantum Lattice System, Kyoto
 E.S. Fradkin, D.M. Shteingradt, A Continual Integral Method for Spin Lattice Models, ETH Zürich
 E. Prugovecki, Liouville Dynamics for Optimal Phase-Space Representations of Quantum Mechanics, A Unified Treatment of Dynamics and Scattering in Classical and Quantum Statistical Mechanics, Toronto
 F. Dyson, E.H. Lieb, B. Simon, Phase Transitions in Quantum Spin Systems with Isotropic and Non-Isotropic Interactions, Princeton
 R. Oehme, Short Distance Regge Singularities, Potential Models, Enrico Fermi Institute
 Th. Gömiz, G. Motz, D. Robaschik, E. Wieczorek, Connection between Light Cone Singularities and the Asymptotic Behaviour of the Moments of the Structure Functions, Dubna
 V.V. Molotkov, S.G. Petrova, Scalar Representations of Conformal Superalgebra, Unitary Scalar Representations of the Conformal Superalgebra (in Russian), Dubna
 I. Lukac, On the Total Sets of Observables on the Sphere in Four-dimensional Euclidian Space (in Russian) Dubna
 B.M. Barbashov, A.D. Koshkarov, O.M. Fedorenko, Some Problems of Classical Dynamics of a Relativistic Spring (in Russian), Dubna
 M. Deneikhan, Kh. Namsray, Construction of Gauge Invariant Quantum Electrodynamics on the Stochastic Space (in Russian), Dubna
 I. Lukac, The Symmetrical Elimination of the Centre of Mass in the Non Relativistic Three Body Problem (in Russian), Dubna
 S. Hikami, T. Muta, Fixed Point and Anomalous Dimensions in $O(N)$ Thirring Model at $2+\epsilon$ Dimensions, Kyoto
 A. Voros, An Algebra of Pseudo-Differential Operators and the Asymptotics of Quantum Mechanics, Saclay
 J. Madore, Angular Momentum and Magnetic Charge, On Axially Symmetric Solutions to the Higgs-Kibble-Yang-Mills Field Equation, CNRS, Marseille
 G. Woo, Pseudoparticle Configurations in Two-dimensional Ferromagnets, Harvard University
 W. Drechsel, Group Contraction in a Fiber Bundle with Cartan Connexion, Max Planck Institut für Physik und Astrophysik, München
 K.R. Parthasarathy, Eigenvalues of Matrixvalued Analytic Functions, New Delhi
 A. Wehrl, Remarks on A-Entropy, Vienna

Conferences

- International Conference on the Mathematical Problems in Theoretical Physics, June 6 - 17, 1977
 Rome University, further information: Ms Di Silvestro, Secretary, Istituto di Fisica „G. Marconi”, Universita, Piazzale delle Scienze 5, 00185 Roma (Italy).
 Conference on Stochastic Behaviour in Classical and Quantum Hamiltonian Systems, June 19 - 24, 1977
 Como, Italy. Further Information: Prof. Joseph Ford, Georgia Institute of Technology, Atlanta, Georgia, 30332, USA.
 Conference on Algebra of Operators and Their Applications to Mathematical Physics, June 20 - 24, 1977
 CNRS, Marseille. Further information: Prof. D. Kastler, CPT, CNRS, 31, chemin J. Aiguier, F-13274 Marseille, France
 Conference on Nonlinear Equations in Physics and Mathematics, August 1 - 13, 1977, International Advanced Study Institute, Istanbul, Turkey. Further information: Prof. A.O. Barut, Physics Dept., University of Colorado, Boulder, Colo. 80309, or Prof. F. Calogero, Istituto di Fisica, Universita, Roma, Italy.

April 1, 1977

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1. Enclosed you find the proposed statutes of AMP. We would like to ask you to vote on them by completing the bottom parts of the page and sending it back to
Dr. Heide Narnhofer - AMP
Institut für Theoretische Physik
Boltzmannngasse 5
A-1090 Wien, Austria
till end of May 1977. By receiving your reply you will become member of AMP unless you state explicitly the contrary.
2. Since we are planning to issue a membership list, please do not forget to put in your exact address so that we can update our membership list.

W. Thirring

Preprints

- W. Karwowski, L. Streit, A Renormalization Group Model with Non Gaussian Fixed Point, Bielefeld
V. Enss, Renormalization Group Limits for Wick Polynomials of Gaussian Processes, Bielefeld
G. Marmo, E.J. Saletan, Ambiguities in the Lagrangian and Hamiltonian Formalism: Transformation Properties, Universita di Napoli
P. Droz-Vincent, Two-Body Relativistic Systems, Universite Paris VII
M. Fannes, A. Verbeure, Correlation Inequalities and Equilibrium States, Leuven, Belgium
M. Fannes, The Entropy Density of Quasi Free States for a Continuous Bose System, Leuven, Belgium
E.B. Davies, Quantum Communication Systems, Scattering from Infinite Sheets, A Model of Atomic Radiation, St. John's College, Oxford
G.I. Kolerov, Quantization and Global Properties of Manifolds, Dubna
I. Miodek, Nonlinear Evolution Equations for Linear First Order $n \times n$ Matrix Differential Equations of the Zakharov-Shabat-Type, Montpellier, France
L. Accardi, Local Perturbations of Conditional Expectations, CNRS, Marseille
J.P. Antoine, A. Grossmann, Orthocomplemented Subspaces of Nondegenerate Partial Inner Product Spaces, CNRS, Marseille
J.E. Roberts, Local Cohomology and its Structural Implications for Field Theory, CNRS, Marseille
A. Martin, P.C. Sabatier, Impedance, Zero Energy Wave Function and Bound States, CERN, Geneva
I. Miodek, „Ist (Inverse Scattering Transform) - Solvable” Nonlinear Evolution Equations and Existence – an Extension of Lax's Method, Montpellier, France
M. Aizenman, S. Goldstein, C. Gruber, J.L. Lebowitz, P. Martin, On the Equivalence between KMS States and Equilibrium States for Classical Systems, Lausanne, Suisse
K. Chadan, A. Martin, Inequalities on the Number of Bound States in Oscillating Potentials, CERN
G. Auberson, A. Martin, G. Mennessier, An Inequality on the Slope of the Diffraction Peak in Elastic Collisions of Particles of Arbitrary Spins, CERN
J. Glimm, A. Jaffe, Quark Trapping for Lattice $U(1)$ Gauge Fields, Harvard University

April 1, 1977

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– an Extension of Lax's Method, Montpellier, France
M. Aizenman, S. Goldstein, C. Gruber, J.L. Lebowitz, P. Martin, On the Equivalence between KMS States and Equilibrium States for Classical Systems, Lausanne, Suisse
K. Chadan, A. Martin, Inequalities on the Number of Bound States in Oscillating Potentials, CERN
G. Auberson, A. Martin, G. Mennessier, An Inequality on the Slope of the Diffraction Peak in Elastic Collisions of Particles of Arbitrary Spins, CERN
J. Glimm, A. Jaffe, Quark Trapping for Lattice $U(1)$ Gauge Fields, Harvard University

July 1st, 1977

AMP NEWS BULLETIN

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1. The outcome of the votes for the statutes is as follows: Yes – 242, No – 2, Abstain – 15. Therefore the statutes have been approved by a sufficient majority and AMP starts to exist legally in July 77.
2. We enclose a list of the members of AMP. I realize that many people active in mathematical physics are unaware of AMP and I would be grateful if in such a case somebody could draw attention to AMP. If you find your name missing on the list, then this means that we have not received your reply to the statutes. Therefore, please let us know if you want to be member of AMP otherwise you will be dropped from our mailing list.
3. At the Rome conference there was a general discussion on the function of AMP for coordinating conferences on mathematical physics. The majority felt that there should be a general conference on mathematical physics every two years continuing the series of the Rome conference. This conference should be sponsored by AMP in the active sense that AMP is involved in the Program Committee and furthermore the place of the conference should be decided by a general vote of AMP members. So the selection procedure would be that the various possibilities are published by AMP and members inform us about their priority. For the next conference there is not enough time for this procedure and so the Executive Committee of AMP will make the selection.
4. For the time being the membership fee is zero. People who will not be able to pay membership fee because of currency difficulties should not worry, we shall find a solution to this problem.

W. Thirring

Preprints

- A. Martin, A Review of Inequalities of the Number of Bound States in Two-Body-Non-Relativistic Systems, CERN
- D. Buchholz, K. Fredenhagen, Note on the Inverse Scattering Problem in Quantum Field Theory, DESY
- W.D. Garber, H. Reeh, Non-translationally Covariant Currents and Symmetries of the S-matrix, Göttingen
- E. Prugovecki, A Quantum Mechanical Boltzmann Equation for One Particle Γ_s -Distribution Functions, Toronto
- B. Simon, Classical Boundary Conditions as a Technical Tool in Modern Mathematical Physics, Princeton
- J.E. Avron, B. Simon, Analytic Properties of Band Functions, Princeton
- R. Kotecky, D. Preiss, Nonperturbative Renormalizability for a Class of Gradient Free Models, Prag
- R. Pearson, Estimates of the Ground State Eigenvalue of the Two Dimensional Spin 1/2 X-Y-Model, Batavia, FNAL, Fermilab
- D.W. Robinson, Dynamics in Quantum Statistical Mechanics, CNRS, Marseille
- V. Gorini, A. Frigerio, M. Verri, A. Kossakowski, E.C.G. Sudarshan, Properties of Quantum Markovian Master Equations, Austin
- W. Bulla, Kovariante kohärente Zustände für quantisierte Systeme mit nilpotenten Symmetriegruppen, Technische Universität Graz
- M. Kupczynski, On the Scattering of the Extended Hadrons
On Canonical and Quasi-Canonical Transformations: Part I: Classical Mechanics, Warsaw University
- F. Strocchi, Local and Covariant Gauge Quantum Field Theories
Cluster Property, Superselection Rules and Infrared Problem, Pisa
- K. Schmüdgen, Positive Cones and Enveloping Algebras, Leipzig
- C. DeWitt-Morette, A. Maheshwari, B. Nelson, Path Integration in Phase Space, Austin
- G.N. Afanasiev, About the Existence of the Additional Integrals of Motion in Classical and Quantum Mechanics (in Russian), Dubna

- R. Blankenbecler, M.L. Goldberger, B. Simon, The Bound States of Weakly-Coupled Long-Range One-Dimensional Quantum Hamiltonians, Princeton
- L. Bonora, P. Pasti, Spectral Properties of Positive Operators and j -Plane Singularities of Multi-peripheral Dynamics, Padova
Spectral Properties of Completely Monotonic Operators
- E. Brüning, On the Structure of Monotone Continuous Linear Functionals on Tensor Algebras that Occur in QFT and on a Class of Extensionproblems for These Algebras I, Bielefeld
- S.S. Ivanov, D.Ya. Petrina, A.L. Rebenko, On the Hamiltonians of Quantum Field Theory of an Infinite Volume, Kiev
- O.K. Vidybida, Local Perturbations of the Stationary Solutions of the Bogoliubov Hierarchy, Kiev
- B. Demoen, P. Vanheuverzwijn, A. Verbeure, Completely Positive Quasi-free Maps on the CCR Algebra, Leuven
- K. Kraus, Galilei Covariance Does Not Imply Minimal Electromagnetic Coupling, Würzburg
- R.F. Streater, Spontaneously Broken Symmetry, Bedford College, London
- A. Martin, An Inequality on S Wave Bound States with Correct Coupling Constant Dependence CERN, Genf
- A. Messager, S. Miracle-Sole, Correlation Functions and Boundary Conditions in the Ising Ferromagnet, CNRS, Marseille
- P. Benioff, H. Ekstein, A Possible Experimental Test of Local Commutativity, CNRS, Marseille
- P. Exner et al., Canonical Realizations of Classical Lie Algebra I, II (in Russian), Dubna
- R. Hermann, Graded Lie Algebra and Their Geometric Representations,
The Quadratic Differential Co-Form on the Dual Space of a Graded Lie Algebra
Lagrangian Field Theories in Fermion and Quantum Differential Geometry, Harvard
- J. Niederle, Localizability of Particles, Prag
- J. Bricmont, The Gaussian Inequality for Multicomponent Rotators, Louvain-la-Neuve
- J.R. Klauder, Functional Equations and Green's Functions for Augmented Scalar Fields
Affine Fields and the Operator Formulation of Augmented Scalar Fields,
Bell Laboratories, Murray Hill
- R. Ahlrichs, M. Hoffmann-Ostenhof, T. Hoffmann-Ostenhof, Bounds for the Long-Range Behaviour of Electronic Wave Functions, Wien
- C. Itzykson, G. Parisi, J.B. Zuber, Asymptotic Estimates in Quantum Electrodynamics, Saclay
- I. Segal, The Complex-Wave Representation of the Free Boson Field, M.I.T.
- A.L. Carey, K.C. Hannabuss, Twistors and Geometric Quantization Theory, Oxford
- K.C. Hannabuss, Canonical Forms for Skew-adjoint Operators on Indefinite Inner Product Spaces, Oxford
- B. Baumgartner, Measure Theoretic Ergodic Theory in Quantum Mechanics, Wien
- R.S. Ingarden, Information Theory and Thermodynamics,
Closed Hamiltonian Systems, Torun
- P. Staszewski, On the Characterization of the Von Neumann Entropy Via the Entropies of Measurements, Torun
- Y.M. Park, Massless Quantum Sine-Gordon Equation in Two Space Time Dimensions:
Correlation Inequalities and Infinite Volume Limit, Seoul
- B. Simon, A Canonical Decomposition for Quadratic Forms with Applications to Monoton
Convergence Theorems
Scattering Theory and Quadratic Forms: On a Theorem of Schechter,
Lower Semicontinuity of Positive Quadratic Forms,
Geometric Methods in Multiparticle Quantum Systems, Yeshiva University
- E.H. Lieb, B. Simon, The Hartree Fock Theory for Coulomb Systems, Yeshiva University
- P. Blanchard, C. Pfister, Processus Gaussien, Equivalence d'Ensemble et Specification Locale, Bielefeld
- M.L. Glasser, Quantum Particles in an Electric Field, Wroclaw
- W. Karwowski, On the Symmetrization of Positive and T-Positive Cones in the Test Functions Algebra, Wroclaw
- P. Garbaczewski, Quantization of Spinor Fields, Wroclaw
- J. Lorenc, Critical Behaviour for Ferromagnets with Tetragonal Symmetry (in Polish), Wroclaw

- J. Hanckowiak, Invariant Properties of n -Point Functions and n -Point Functionals Connected with the Translational Invariance of the Formal Measure, Wrocław
- J. Przystawa, A. Mrozinska, Representation Analysis of Antiferromagnetic Transitions in UA_5 and UO_2 , Wrocław
- A.L. Stella, F. Toigo, Real-Space Renormalization Group Evidence for Critical Phenomena in the Two Dimensional Spin 1/2 X-Y Model, Renormalization and Scaling of a Two-Dimensional Ising System in a Transverse Field at $T_c > 0$, Padova
- A.M. Bincer, $U(n)$ Lowering Operators, University of Wisconsin
- J. Avron, I. Herbst, B. Simon, The Zeeman Effect Revisited, Princeton
- P. Bona, A Solvable Model of Particle Detection in Quantum Theory, Bratislava
- E.B. Davies, Irreversible Dynamics of Infinite Fermion Systems, A Model for Heat Conduction, Oxford
- S.T. Kuroda, H. Morita, An Estimate for Solutions of Schrödinger Equations with Time Dependent Potentials and Associated Scattering Theory, Tokyo
- P.W. Johnson, R.L. Warnock, M. Kackebeke, Dynamical Equations for a Regge Theory with Crossing Symmetry and Unitarity, Illinois Institute of Technology, Chicago
- G.A. Hagedorn, Asymptotic Completeness for a Class of Four Particle Schrödinger Operators, Princeton
- P. Deift, B. Simon, A Time - Dependent Approach to the Completeness of Multiparticle Quantum Systems, Courant Institute, New York
- P.H. Weisz, Exact Quantum Sine-Gordon Soliton Form Factors, Perturbation Theory Check of a Proposed Exact Thirring Model S-Matrix, FU Berlin
- B. Berg, The Massive Thirring Model: Particle Scattering in Perturbation Theory, FU Berlin
- M. Karowski, H.J. Thun, T.T. Truong, P.H. Weisz, On the Uniqueness of a Purely Elastic S-Matrix in (1+1) Dimensions, FU Berlin
- M. Karowski, H.J. Thun, Complete S-Matrix of the Massive Thirring Model, FU Berlin
- J.M. Combes, R. Schrader, R. Seiler, Classical Bounds and Limits for Energy Distributions of Hamilton Operators in Electromagnetic Fields, FU Berlin
- R. Hermann, The Algebraic Basis for the Gelfand-Levitan Technique, Graded Associative Algebras, and Cosymplectic Structures, Generalized Berezin-Kac Groups in Quantum Differential Geometry, The Toda Lattice as a Left-Invariant Mechanical System on a Lie-Group Cosymplectic Structures on Lie-Algebras and "Function Groups" in the Sense of Sophus Lie, Harvard
- R. Benguria, E.H. Lieb, Many Body Atomic Potentials in Thomas Fermi Theory, Princeton
- M. Fannes, A. Verbeure, Correlation Inequalities and Equilibrium States II, Leuven
- R.H. Herman, D. Kastler, Energy Spectrum of Extremal Invariant States, Pennsylvania State Univ.
- L.G. Kalnis, W. Miller, Lie Theory and the Wave Equations in Space Time 2. The Group $SO(4,C)$. The Wave Equation, $O(2,2)$, and Separation of Variables on Hyperboloides, University of Waikato, New Zealand
- E.G. Kalnis, W. Miller, Separable Coordinates for Three Dimensional Complex Riemannian Space Waikato
- C.P. Boyer, E.G. Kalnis, W. Miller, Symmetry and Separation of Variables for the Hamilton-Jacobi Equation $W_t^2 - W_x^2 - W_y^2 = 0$, Waikato
- G. Roepstorff, Bounds for a Bose Condensate in Dimensions $\nu \geq 3$, Aachen
- J. Andretsch, G. Schäfer, Quantum Mechanics of Electromagnetically Bounded Spin 1/2 Particles in Expanding Universes. I Influence of Expansion, II Energy Spectrum of the Hydrogen Atom, Konstanz
- O. Bratteli, R.H. Herman, D.W. Robinson, Perturbations of Flows on Banach Spaces and Operator Algebras, Pennsylvania State University
- R. Friedberg, T.D. Lee, Fermion-Field Nontopological Solitons II Models for Hadrons, Columbia University
- J. Ginibre, G. Velo, On a Class of Non Linear Schrödinger Equations III. Special Theories in Dimensiona 1, 2 and 3, Orsay
- Ch. Radin, B. Simon, Invariant Domains for the Time-Dependent Schrödinger Equation, University of Texas at Austin

- M.E. Mayer, Introduction to the Fiber-Bundle Approach to Gauge Theories, University of California, Irvine
- J. Bricmont, On the Transport of Equilibrium States, Universite Catholique de Louvain
- E. Remiddi, W.L. Van Neerven, R.P. Van Royen, Critical Phenomena in Three Dimensions for Arbitrary N , Nijmegen
- R. Menikoff, D.H. Sharp, A Derivation of the Virial Expansion with Application to Euclidian Quantum Field Theory, Los Alamos
- J.Y. Pasquier, R. Pasquier, On the Analytic Properties of Non Relativistic Two-Body Off-Shell Amplitudes II. Off-Shell Generalizations of the Jost Formalism, Orsay
- E.B. Davies, A Model of Heat Conduction, Irreversible Dynamics of Infinite Fermion Systems, Oxford
- R. Shankar, Further Applications of Topology in the Study of Nematics, $^3\text{He} - A$ and Other Ordered Systems, Harvard
- G.C. Hegerfeldt, Correlation Inequalities for Ising Ferromagnets with Symmetries, Göttingen
- G. Kunstatter, J.W. Moffat, Maximal Extension of a Non-Singular Solution in a Generalized Theory of Gravitation, Toronto
- P.A. Vuillermot, Thermodynamics of Quenched Random Spin Systems and Applications to the Problem of Phase Transitions in Magnetic - (Spin -) Glasses, Princeton
- B. d'Espagnat, Use of Inequalities for the Experimental Test of a General Conception of the Foundations of Microphysics (ii), Orsay
- B.I. Sadovnikov, N.G. Inozemtseva, On Some Asymptotic Relations in the Boltzmann-Enskog Model, Trieste
- H. Heß, R. Schrader, D.A. Uhlenbrock, Domination of Semigroups and Generalization of Kato's Inequality, FU Berlin
- M.Yu. Rasulova, Kinetic Equations for Correlation Functions and Density Matrices with Small Perturbations (in Russian), Kiev
- A.I. Bugrij, A Relativistic Gas of Interacting Particles in the Phase Volume Approximation, Kiev
- J.A. Verdiyev, The Invariants of the Representations of the Pseudo-Orthogonal Matrices $SO(p,q)$ (in Russian), Kiev
- Yu.B. Gaididei, A.S. Trofimov, Quantum Theory of Migration of Exciton Excitations in Impurity Crystals (in Russian), Kiev
- N.N. Bogoliubov (jr), D. Ya. Petrina, On a Class of Model Systems Permitting a Decrease of the Hamiltonian Power in The Thermodynamic Limit I, Kiev
- W.A. Strauss, Existence of Solitary Waves in Higher Dimensions, Brown University, Rhode Island
- J.P. Gazeau, M.Cl. Dumont-Lepage, A. Ronveaux, Gel'fand Lattice Polynomials and Irreducible Representations of $U(n)$, Namur, Belgium
- M.J. Feigenbaum, Quantitative Universality for a Class of Nonlinear Transformations, Los Alamos
- P. Hrasko, J. Balog, Rotation Symmetry in the Hamiltonian Dynamics, Budapest
- E. Onofri, M. Pauri, Search for Periodic Hamiltonian Flows: A Generalized Bertrand's Theorem, Parma
- E.J. Kanellopoulos, Th.V. Kanellopoulos, Expression of the S-Matrix for a Large Class of Potentials Over the Complex k -Plane, Tübingen
- A. Uhlmann, The Order Structure of States, Leipzig
- H. Kleinert, Collective Fields (Preliminary Version), FU Berlin
- R.N. Sen, Bundle Representations and Their Applications, Ben Gurion University, Israel

Book

Springer gives the reduced price of DM 30 (list price DM 36) for W. Thirring, Lehrbuch der Mathematischen Physik, Bd. I, Klassische dynamische Systeme. Orders should be mailed to Mrs. F. Wagner, Institut für Theoretische Physik, Boltzmannngasse 5, A-1090 Wien, Austria.

Sept. 20. 1977

AMP NEWS BULLETIN

Progress Report

You will find a supplementum to the membership list. Please notify us about further omissions.

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R. Seiler, Institut für Theoretische Physik, Arnimallee 3, D-1000 Berlin 33, BRD

D.J. Simms, School of Mathematics, University of Dublin, 39 Trinity College, Dublin 2,
Ireland

F. Spitzer, Mathematics Dept., Cornell University, Ithaca, N.Y. 14850, USA

H. Spohn, Jadwin Hall, Princeton University, P.O.B. 708, Princeton, N.J. 08540, USA
from May 1, 1978: Theoretische Physik, Theresienstr. 37, 8 München 2, BRD

Y. Tagamlitzki, University of Sofia, Institute of Mathematics and Mechanics, 1000 Sofia,
P.O.Box 373, Bulgaria

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meer, The Netherlands

J. Tolar, Faculty of Nuclear Science, Technical University, CS-11519 Prague 1, CSSR
until Febr. 1978: Institut für Theoretische Physik der TU, D-3392 Clausthal,
Leibnizstr. 10, BRD

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P.L. Torres, Dpto. de Fisica, Fac. de Ciencias, U.C.V, Aptdo. 10098, Caracas, Venezuela

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 R. Weder, Princeton University, Jadwin Hall, P.O.Box 708, Princeton, N.J. 08540, USA
 W.F. Wreszinski, Institut de Physique, Université de Neuchâtel, CH-2000 Neuchâtel, Suisse
 F. Zaccaria, Istituto di Fisica Teorica, Università di Napoli, Mostra d'Oltremare, 80125 Napoli, Italia

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 Lund Universitets Matematiska Institution,
 Box 725
 S-220 07 Lund
 Sweden

Please, if you change address do not notify us earlier than two months in advance, because otherwise we are afraid of confusion.

Preprints

- H. Bacry, The Projective Lie Algebra of the Lorentz Group and Homographic Transformations, Marseille
 J.M. Souriau, Thermodynamique Relativiste des Fluides, Marseille
 H. Bacry, Eigenstates of Complex Linear Combinations of J_1, J_2, J_3 for any Representation of $SU(2)$, Marseille
 B. Simon, Kato's Inequality and the Comparison of Semigroups, Geneva
 O. Steinmann, Semiclassical Fields in Soliton Sectors, Bielefeld
 B. Simon, New Rigorous Existence Theorems for Phase Transitions in Model Systems, Princeton
 H. Spohn, J.L. Lebowitz, Irreversible Thermodynamics for Quantum Systems Weakly Coupled to Thermal Reservoirs, Yeshiva University, New York
 H. Spohn, Derivation of the Transport Equation for Electrons Moving Through Random Impurities, Princeton
 J. Fröhlich, The Pure Phase (Harmonic Functions) of Generalized Processes or Mathematical Physics of Phase Transitions and Symmetry Breaking, Princeton
 R.N. Hill, Proof that the H^- Ion has only One Bound State, University of Delaware, Newark,
 D. Bolle, H. Smeesters, Trace Formulas for Time Delay and the Second Virial Coefficient, Leuven, Belgium
 V.S. Potapov, J.R. Taylor, Three Particle Scattering Rates and Singularities of the T-Matrix I, II, Boulder, Colorado
 M.A. Raupp, N.S. de Rezende, Computation of Longitudinal Motions of a Viscoelastic Bar, Rio de Janeiro

- B. Carazza, The History of Random Walk Problem: Considerations on the Interdisciplinarity in Modern Physics, Parma
- K.K. Wan, C. Viazminsky, Quantization in Spaces of Constant Curvature, University of St. Andrews, North Haugh, England
- S. Albeverio, R. Hoegh-Krohn, Frobenius Theory for Positive Maps of Neumann Algebras, Oslo
- A. Wehrl, General Properties of Entropy, Vienna
- K. Keller, On the Multiplication of Distributions IV, Aachen
- H. Baumgärtel, M. Demuth, Decoupling by a Projection, AdW, DDR, Berlin
- H. Baumgärtel, Remarks on Multichannel Scattering Theory, On Resonances in Multichannel Scattering Theory, AdW, DDR, Berlin
- O. Melsheimer, On the Classical Content of Many-Body Quantum Mechanics, Marburg
- W. Braun, K. Hepp, The Vlasov Dynamics and Its Fluctuations in the $1/N$ -Limit of Interacting Classical Particles, ETH Zürich
- M.M. Tropper, Ergodic and Quasi-Deterministic Properties of Finite-Dimensional Stochastic Systems, Ergodic Properties of Infinite Dimensional Stochastic Systems, The General Electric Company Ltd., Hirst Research Center, Wembley, Middlesex
- B. Simon, QM and QM* Interpolation and a New Class of Function Norms, Yeshiva University
- P. Ferrero, O. de Parris, Some Other Examples of Return to Equilibrium for Fermi Systems, CNRS, Marseille
- M. Romerio, W.F. Wreszinski, On the Spectrum of the Dynamical Matrix for a Class of Disordered Harmonic Systems, Neuchatel
- S. Nagamachi, N. Mugibayashi, The Haag-Ruelle Formulation of Scattering in Hyperfunction Quantum Field Theory, Kobe
- J.P. Antoine, C. Malon, Unbounded Representations of the Poincare and Gauge Group in the Indefinite Metric Quantization of the Electromagnetic Field, Leuven
- R. Haag, E. Trych-Pohlmeyer, Stability Properties of Equilibrium States, Hamburg
- M. Fannes, A. Verbeure, Global Thermodynamical Stability and Correlation Inequalities, Leuven
- A. Korszakowski, A. Frigerio, V. Gorini, M. Verri, Quantum Detailed Balance and KMS Condition, Milano
- A. Frigerio, V. Gorini, M. Verri, Stability, Detailed Balance and KMS Condition for Quantum Systems, Milano
- G. Hofmann, Sufficient Criteria for the Normality of Cones in Tensor Algebras and Some Applications, The Closure of Cones in the Algebra of Test Functions, Leipzig
- V.A. Sheherbina, G. Mann, On the Construction of the Perturbation Series of the S-Matrix, Leipzig
- H. Englisch, Superselection Rules, Superposition and Vector States, Leipzig
- H.A. Kastrup, Caratheodory's Canonical Theory for Fields and the Problem of Quark Confinement, Aachen
- A.K. Common, T. Stacey, Legendre Pade Approximants and Their Application in Potential Scattering, The Convergence of Legendre Pade Approximants to the Coulomb and Other Scattering Amplitudes, University of Kent at Canterbury
- M. Sato, T. Mirra, M. Jimbo, Studies of Holonomic Quantum Fields II, III, Kyoto

- S. Deser, C. Teitelboim, Supergravity has Positive Energy, Brandeis University
- R. Tabensky, C. Teitelboim, The Square Root of General Relativity, Princeton
- M. Pilati, The Canonical Formulation of Supergravity, Princeton
- L. van Hemmen, Linear Fermion Systems, Molecular Field Models and the KMS Condition,
A Generalization of Rayleigh's Theorem to the Infinite Harmonic Crystal, IHES
- J. Tarski, Short Introduction to Nonstandard Analysis and Its Physical Applications, Bielefeld
- Y. Avron, L. Kleinman, The Trapping of Positive Energy Electrons on an Infinite Sheet, Aspen
- G. Ten Brinke, On KMS-Evolutions and Liouville Operators in Quantum Statistical Mechanics,
Groningen
- F. Hoekman, On Stability and Symmetries in Quantum Statistical Mechanics, Groningen
- P.J. Paes-Leme, Ornstein-Zernike and Analyticity Properties for Classical Lattice Spin Systems,
Courant Institute, New York
- R. Schwartz-Schor, The Particle Structure of r -Dimensional Ising Models at Low Temperatures,
Rockefeller University, New York
- J. Messer, Metrische Räume von Wechselwirkungen und der thermodynamische Limes,
Göttingen
- P.L. Garcia, Critical Principal Connections and Gauge-Invariance, Salamanca
- A. Galindo, A Remarkable Invariance of Classical Dirac Lagrangians, Madrid
- R.F. Alvarez-Estrado, A. Galindo, Bound States in Some Coulomb Systems, Madrid
- J.T. Lopuszanski, The Representations of the Poincare Group in the Framework of Free
Quantum Fields, Wrocław
- R. Oehme, Coupling Parameter Trajectories, Karlsruhe
- H. Spohn, Entropy Production for Quantum Dynamical Semigroups, Princeton
- E.G. Kalnins, W. Miller, R-Separation of Variables for the Four-Dimensional Flat Space
Laplace and Hamilton-Jacobi Equations, University of Waikato, New Zealand
- R. Ito, The Thirring Model Revised - Renormalization and Sine - Gordonization, Kyoto
- H.R. Petry, Exotic Spinors in Superconductivity, Bonn
- R. Weder, Absence of Classical Lumps, Harvard
- K. Osterwalder, E. Seiler, Gauge Field Theories on the Lattice, Harvard
- E. Brüning, On the Characterization of Relativistic Quantum Field Theories in Terms of
Finitely Many Vacuum Expectation Values I, II, Bielefeld
- B. Jancovici, Exchange Quantum Corrections in the One-Component Plasma, Orsay
- E.R. Caianiello, M. Marinaro, G. Scarpetta, Some Unorthodox Expansions in Quantum Field
Theory and Statistical Mechanics, Salerno
- J.W.B. Hughes, J. Yadegar, $O(3)$ Shift Operators. I: The General Analysis, Queen Mary College,
London
- F. Bentosela, Impurity Levels: Corrections to the Effective Mass Approximation, CNRS,
Marseille
- J. Elhadad: Quantification du Flot Géodésique de la Sphere S^n , CNRS, Marseille
- J.E. Roberts: A Survey of Local Cohomology, Marseille
- A. Wehrl, On the Relation between Classical and Quantum-Mechanical Entropy, Wien
- J. Messer, Topology on Interactions for Classical Continuous Systems, Göttingen
- J.P. Antoine, Partial Inner Product Spaces: Another Approach to Unbounded Operators, Leuven
- H. Cappon, Non Relativistic Limit in the Algebraic Approach of Relativistic Quantum
Mechanics, Leuven
- S. Albeverio, R. Hoegh-Krohn, Topics in Infinite Dimensional Analysis, Bielefeld

AMP NEWS BULLETIN

Progress Report

1. The CNRS in Marseille produces "C*-News" where they list preprints about C*-algebras and related topics. Purely mathematical papers should be sent to them rather than to the AMP-Bulletin. Papers with applications to physics can be sent to both. For further information contact R. Lima, CPT, CNRS, chemin J. Aiguier 31, Marseille.
2. The Executive Committee has elected W. Thirring as president of AMP. The election of the other officers is not yet complete.

Happy New Year,

W. Thirring

Conferences

Facts and Prospects of Gauge Theories, Febr. 21 - March 3, 1978, Schladming, Austria

Further information: XVII Internationale Universitätswochen, Organizing Committee,
Institut für Theoretische Physik, Universität Graz, Universitätsplatz 5,
A-8010 Graz, Austria

Electrons in Disordered Metals and at Metallic Surfaces, Aug. 28 - Sept. 9, 1978, Gent, Belgium

Further information: Prof. Dr. P. Phariseau, Krijgslaan 271 / S9, Rijksuniversiteit Gent,
B-9000 Gent, Belgium

Planned Conferences

Exact Properties of the Schrödinger-Equation, Nov. 1978, Bielefeld, BRD

Further information: Th. Hoffmann-Ostenhof, Institut für Theoretische Chemie und Strahlen-
chemie, Währingerstr. 17, A-1090 Wien, Austria

Rigorous Atomic and Molecular Physics, June 15 - 30, 1980, Erice, Italy

Further information: Giorgio Velo, Istituto di Fisica "A. Righi", Via Irnerio 46, 40126 Bologna

Books

Theory of Group Representations and Applications,

A.O. Barut, R. Raczka, ca. 750 p.p., cloth, US \$ 35.00

Analysis, Manifolds and Physics,

Y. Choquet-Bruhat, C. DeWitt-Morette, M. Dillard Bleick, North Holland, 550 p., \$ 19.50

Preprints

C. de Concini, Istituto di Matematica, Pisa, and G. Vitiello, Istituto di Fisica, Salerno, Italy,

Group contractions and infrared effect in theories with spontaneous breakdown of
symmetry (VI International Colloquium on Group Theoretical Methods in Physics,
Tübingen, July 1977)

I. Rabuffo, G. Vitiello, Istituto di Fisica, Salerno, Italy,

Vacuum structure for indefinite metric quantum field theory

P. Vanheuverzwijn, Instituut voor Theoretische Fysica, Universiteit Leuven, Belgium,

Generators for quasi-free completely positive semigroups

H. Spohn, Joseph Henry Laboratories, Princeton University, Princeton, N.J. 08540,

permanent address Universität München, Fachbereich Physik,

The Lorentz process converges to a random flight process

J.L. van Hemmen, IHES, Bures-sur-Yvette, France,

Essential singularities in the density of states of some random systems

J. Hejtmanek, Mathematisches Institut der Universität Wien,

Spectral and Scattering Theory of the neutron transport operator

- M. Requardt, Institut für Theoretische Physik, Universität Göttingen,
 1. Spontaneous symmetry breaking and phase transitions in many body theory,
 2. Goldstone excitations and timelike cluster properties of certain correlation functions in many body theory
- B. Simon, Department of Mathematics, Weizmann Institute of Science, Rehovot, Israel,
 permanent address: Dept. of Mathematics and Physics, Princeton University, N.J. 08540,
 N-body-scattering in the two-cluster region
- Y. Ne'eman, Dept. of Physics and Astronomy, Tel-Aviv University, Tel-Aviv, Israel,
 Spinor-type fields with linear, affine and general coordinate transformations
- R.G. Newton, Physics Department, Indiana University, Bloomington, Indiana 47401,
 Three-dimensional solitons
- A.M. Bincer, Physics Department, University of Wisconsin, Madison, WI 53706
 1. Raising and lowering operators for the orthogonal group
 2. Normalization coefficient for the $O(n)$ shift operators
- F. Reuse, Department of Theoretical Physics, University of Geneva, 1211 Geneva, Switzerland,
 A new relativistic model for the hydrogen atom
- R. Ben Guria, E.H. Lieb, Dept. of Physics, Princeton University, Princeton, N.J. 08540
 Many-body atomic potentials in Thomas-Fermi theory
- G. Lassner, G.A. Lassner, Laboratory of Theoretical Physics, JINR, Moscow,
 On the continuity of the entropy
- J.-P. Eckmann, Departement de Physique Theorique, Universite de Geneve, Suisse,
 Relativistic boson quantum field theories in two space-time dimensions
- D. Brydges, The Rockefeller University, New York, N.Y. 10021,
 A rigorous approach to Debye screening in dilute classical Coulomb systems
- P. Ferrero, CPT, CNRS, 31, chemin J. Aiguier, Marseille, France,
 Entropie topologique canonique
- J.M. Combes, CPT, CNRS, 31, chemin J. Aiguier, Marseille, France,
 Scattering theory in quantum mechanics and asymptotic completeness
- T. Kako, Dept. of Mathematics, Saitama University, 338 Urawa, Japan,
 Existence and equivalence of two types of long-range modified wave operators
- A. Messager, S. Miracle Sole, C. Pfister, CPT, CNRS, Marseille, France,
 Correlation inequalities and uniqueness of the equilibrium state for the plane rotator ferromagnetic model
- W. Pusz, S.L. Woronowicz, Dept. of Mathematical Methods in Physics, University of Warsaw,
 00-682 Warszawa, Poland,
 Passive states and KMS states for general quantum systems
- G. Jona-Lasinio, Istituto die Fisica and Gruppo GNSM, Universita Roma,
 Probabilistic approach to critical behaviour
- M. Hasler, Mathematics Department, Bedford College, London, England, and Departement
 d'Electricite, EPFL, Lausanne, Switzerland,
 On a quantum mechanical model for a maser II
- R. Menikoff, D.H. Sharp, Theoretical Division, Los Alamos Scientific Laboratory, University
 of California, Los Alamos, New Mexico 87545
 A Derivation of the virial expansion with application to euclidian quantum field theory
- M. Wollenberg, ZIMM der AdW der DDR, DDR-108 Berlin, Mohrenstr. 39,
 On the inverse problem in the abstract theory of scattering
- D. Babbitt, L. Thomas, University of California, Los Angeles, California,
 Ground state representation of the infinite one-dimensional Heisenberg ferromagnet
- U. Cattaneo, Institut de Physique, Universite de Neuchatel, CH-2000 Neuchatel, Suisse,
 1. Abelian extensions of topological vector groups
 2. Locally continuous multipliers for topological vector groups
- R. Menikoff, D.H. Sharp, Los Alamos, Scientific Laboratory, New Mexico 87545,
 A derivation of the virial expansion with application to euclidian quantum field theory

- J. Janssens, M. Jaspers, Universite de Liege, Institut de Physique an Sart Tilman, Bat. B.5,
S-4000 Liege 1, Belgium,
On timelike, lightlike and spacelike Realizations of Poincare generators
- M. Requardt, Institut für Theoretische Physik, Universität Göttingen,
1. Goldstone excitations and timelike cluster properties of certain correlation functions
in many body theory
2. Spontaneous symmetry breaking and phase transitions in many body theory
- D. Babbitt, L. Thomas, Los Angeles, University of California, Cal.,
Ground state representation of the infinite one-dimensional Heisenberg ferromagnet III,
Scattering theory
- E. Chen, A. Verbeure, Instituut voor Theoretische Fysica, Leuven, Belgium,
Poisson brackets and commutation theorem
- H. Cornille, CEN, Saclay, Gif-sur-Yvette, France,
Confined solutions of multidimensional inversion equations
- U. Cattaneo, Institut de Physique, Neuchatel, Suisse,
1. Locally continuous multipliers for topological vector groups
2. Abelian extensions of topological vector groups
- E. Brüning, Fakultät für Physik der Universität Bielefeld,
On the characterization of relativistic quantum field theories in terms of finitely many
vacuum expectation values
- R. Beig, Institut für Theoretische Physik, Universität Wien,
Radiation (-damping) in a universe with topologically closed space sections
- C. Piron, F. Reuse, University of Geneva, Dept. of Theoretical Physics,
Relativistic dynamics for the spin 1/2 particle
- C. Chandler, Hungarian Academy of Sciences, Central Research Institute for Physics, Budapest,
Nonrelativistic multichannel quantum scattering theory in a two Hilbert space formulation
- B. Demoen, A. Verbeure, Universiteit Leuven, Belgium,
Homogeneous perturbed classical states and equilibrium conditions
- K.C. Hannabuss, Mathematical Institute, St. Giles, Oxford,
Representation of nilpotent locally compact groups
- H. Scutara, Central Institute of Physics, R-76900 Magurele-Bucharest, Romania,
Estimations of the entropy of a quantum state with the aid of covariant and contra-
variant symbols
- I. Raszillier, Central Institute of Physics, Bucharest,
1. On correlation between the pion charge radius and the pionic contribution to the muon
magnetic moment
2. Extremal properties in the phenomenology of the pion electromagnetic form factor
- O.W. Greenberg, J.S. Kang, C.H. Woo, Center for Theoretical Physics, University of Maryland,
College Park, Maryland,
Infrared regularization of the massless scalar free field in two-dimensional space-time
via Lorentz expansion
- R. Seiler, Institut für Theoretische Physik, FU Berlin, Arnimallee 3,
Particles with spin $S \leq 1$ in an external field
- P.C. Sabatier, Dept. de Physique Mathematique, Montpellier, France,
1. Inverse scattering problems for non-linear applications
2. On the solution of an infinite system of non-linear equations
- K. Schmüdgen, Sektion Mathematik, Karl-Marx-Universität, Leipzig,
Trace functionals on unbounded operator algebras
- E.C. Poggio, H.N. Pendleton, Fisher School of Physics, Brandeis University, Waltham, Mass. 02154,
Vanishing of charge renormalization and anomalies in a supersymmetric gauge theory
- A. Borowiec, A. Jadczyk, Institute for Theoretical Physics, University of Wroclaw,
Relativistic systems with a conserved probability current
- P. Garbaczewski, G. Vitiello, Institute for Theoretical Physics, University of Wroclaw,
A canonical description of the solitary quantum decay
- H. Filipowski, M. Kruk, J. Morzymas, Institute for Theoretical Physics, University of Wroclaw,
Structure constants of algebras of projective representations of point groups

- P. Garbaczewski, Institute for Theoretical Physics, University of Wrocław,
Self-quantization of the sine-Gordon system in soliton sector
- J. Jedrzejewski, Institute for Theoretical Physics, University of Wrocław,
Remarks on upper bounds for correlation functions of the Ising ferromagnet
- A. Pekalsky, Institute for Theoretical Physics, University of Wrocław,
Critical properties of two-dimensional systems with randomly mixed Ising and Heisenberg bonds
- M. Toller, Department of Mathematics and Physics, Povo (Trento), Italy,
Classical field theory in the space of reference frames
- G.E. Emch, Dept. of Mathematics and Physics, University of Rochester, N.Y. 14627
1. Stochasticity and irreversibility in infinite mechanical systems
 2. Phase transitions, approach to equilibrium and structural stability
- C. Tsallis, Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brasil,
1. Diagonalization methods for the general bilinear Hamiltonian of an assembly of bosons
 2. Influence of long range forces in isotropic two-dimensional magnetism
- C.M. Chaves, P. Lederer, A.A. Gomes, Centro Brasileiro, Rio de Janeiro,
Phase transitions in the Hubbard Hamiltonian
- A.A. Gomes, P. Lederer, C.M. Chaves, Centro Brasileiro, Rio de Janeiro,
Coupled charge and spin fields in itinerant-electron paramagnets
- E. Buffet, P.A. Martin, EPF, Lausanne, Switzerland,
Dynamics of the open BCS-model
- J.R. Klauder, Bell Laboratories, Murray Hill, N.J. 07974,
1. Scale covariant quantization
 2. Continuous representations and path integrals, revisited
- F. Calogero, Istituto di Fisica, Università di Roma,
1. Nonlinear evolution equations solvable by the inverse spectral transform
 2. On the zeros of Bessel functions, II
- M. Bruschi, D. Levi, O. Ragnisco, Istituto di Fisica, Università di Roma,
Nonlinear evolution equations solvable by the inverse spectral transform associated to the matrix Schrödinger equation of rank 4
- A. Degasperis, Istituto di Fisica, Università di Roma,
Solitons, Boomerons, trappons
- O. Steinmann, Fakultät für Physik, Universität Bielefeld, BRD,
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- A.J. Kalnay, R. Tascon, IVIC, Caracas 101, Venezuela,
On Lagrange, Hamilton-Dirac and Nambu mechanics
- A.J. Kalnay, IVIC, Caracas, Venezuela,
On Fermi quantum fields constructed from Bose quantum fields and their applications
- W. Thirring, R. Wallner, Institut für Theoretische Physik, Universität Wien,
The use of exterior forms in field theory
- G. Siegl, Institut für Theoretische Physik, Universität Wien,
The Peierls phase transition

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