

February 14, 1978

AMP NEWS BULLETIN

Progress Report

1. The following officers of the society have been elected by the executive committee:

H. Araki	Vice-President
D. Ruelle	Secretary
C. Piron	Treasurer
2. I noted that several new books in mathematical physics are not available in many places because either they are not known or they cannot be bought easily. Unfortunately book dealers are not very interested in keeping books with a small sale and they use phantastic rates of exchange for foreign books. Therefore, I would encourage authors to inform us from which dealers their books can be obtained most easily and we can announce this fact. Also authors should try to negotiate a special price of their books for AMP members.
3. Since we list only papers which have been written and not papers which are planned to be written, please do send us a copy.
4. Papers on nonlinear mechanics with abstracts are listed by School of Physics, Georgia Institute of Technology, Atlanta, Georgia 30332, USA. For further information contact Joseph Ford, Professor of Physics, at the above address.

W. Thirring

Preprints

- G. Hofmann, Karl Marx Univ., Leipzig, Topologies on the Algebra of Test Functions
- C.P. Boyer, E.K. Kalnins, W. Miller, Univ. of Waikato, Hamilton, New Zealand,
Separable Coordinates for Four-Dimensional Riemannian Spaces
- F. Calogero, Istituto di Fisica, Universita di Roma, Equilibrium Configuration of the
One Dimensional n-Body Problem with Quadratic and Inversely Quadratic Pair Potentials
- Ph. Blanchard, E. Brüning, Fakultät für Physik, Universität Bielefeld, Bemerkungen über
eine Arbeit von W. Strauss (CMP 55, 149-162, 1977)
- A. Barducci, L. Lusanna, E. Sorace, Istituto di Fisica Teorica dell' Universita di Firenze,
Relativistic Action at a Distance through Singular Lagrangians with Multiplicative
Potentials and Its Relation to the Non Relativistic Two Body Problem
- P. Dominici, J. Gomis, G. Longhi, Istituto Nazionale di Fisica Nucleare, Sezione di Firenze,
A Lagrangian for Two Interacting Relativistic Particles I
- D. Dominici, G. Longhi, Istituto Nazionale di Fisica Nucleare, Sezione di Firenze,
A Pseudoclassical Lagrangian for Two Interacting Spinning Particles
- B. Berg, M. Karowski, W.R. Theis, H.J. Thun, Institut f. theor. Physik, FU, Berlin 33,
Generalized Jost Functions and Levinson's Theorem in a $1 + 1$ Dimensional Relativistic
Field Theoretic Model
- P. Garbaczewski, ICTP, Trieste, The Method of Boson Expansions in Quantum Theory
- M. Dineikhan, Kh. Namsrai, Z. Omboo, Dubna, JINR, To the Construction of Gradient-
Invariant Quantum Electrodynamics for Particles with the Spins 0 and 1 in Stochastic
Space (in Russian)
- Yu.S. Galpern, A.T. Filippov, Dubna, JINR, On a Vortex Structure of the Second Type
Superconductors (in Russian)
- K. Hutter, A. Van de Ven, ETH Zürich, Field Matter Interactions in Thermoelastic Solids
- T. Yoshimuru, Dept. of Mathematics, King's College, London, Some Remarks on Green's
Function Formalism of Klauder's Augmented Quantum Field Theory

- A. Decarreau, M.-Cl. Dumont-Lepage, P. Maroni, A. Robert, A. Ronveaux, Laboratoire de Phys. Math. et de Phys. du Solide, Namur, Belgique, Formes Canoniques des Equations Confluentes de l'Equation de Heun
- A. Ronveaux, Laboratoire de Phys. Math. et de Phys. du Solide, Namur, Belgique, Operateurs Integraux et Modes Propres de Plasmons de Surface
- A. Ronveaux, A. Moussiaux, Laboratoire de Phys. Math. et de Phys. du Solide, Namur, Belgique, Plasmons de Surface Autour d'une Cavite Situee dans un Metal Semi-infini
- K.R. Ito, Research Institute for Math. Science, Kyoto University, Canonical Linear Transformation on Fock Space with an Indefinite Metric Construction of Two Dimensional Quantum Electrodynamics I
- H. Heß, R. Schrader, D.A. Uhlenbrock, Institut f. theor. Physik, FU Berlin, Kato's Inequality and the Spectral Distribution of Laplacians on Compact Riemannian Manifolds
- J.M. Combes, R. Seiler, Institut f. theor. Physik, FU Berlin, Regularity and Asymptotic Properties of the Discrete Spectrum of Electronic Hamiltonians
- M. Bertero, G.A. Viano, Istituto di Scienze Fisiche dell'Universita, Genova, On Probabilistic Methods for the Solution of Improperly Posed Problems
- M. Bertero, C. de Mol, G.A. Viano, Genova, On the Problems of Object Restoration and Image Extrapolation in Optics
- A. Inoue, T. Funaki, Dept. of Mathematics, Faculty of Sciences, Hiroshima University, On a New Derivation of the Navier-Stokes Equation
- V. Glaser, H. Grosse, A. Martin, CERN, Geneva, Bounds on the Number of Eigenvalues on the Schrödinger Operator
- J. Bellisard, J. Fröhlich, B. Gidas, CPT, CNRS, Marseille, France, Soliton Mass and Surface Tension in the $(\lambda\overline{\Phi}^4)_2$ Quantum Field Theory
- J.P. Antoine, A. Grossmann, CPT, CNRS, Marseille, Orthocomplemented Subspaces of Nondegenerate Partial Inner Product Spaces
- A. Grossmann, CPT, CNRS, Marseille, Geometry of Real and Complex Canonical Transformations in Quantum Mechanics
- A. Grossmann, P. Huguenin, CPT, CNRS, Marseille, Group Theoretical Aspects of the Wigner Weyl Isomorphism
- H. Reeh, M. Requardt, Institut f. theor. Physik, Univ. Göttingen, Some Properties on the Electric Charge Operator
- D. Christodoulou, M. Francaviglia, MPI für Physik und Astrophysik, München,
I, Some Dynamical Properties of Einstein Spacetimes Admitting a Gaussian Foliation
II, On Certain Foliations of the Space of Riemannian Metrics on Compact 3-Manifolds
- H. Kunz, B. Souillard, Lab. de Phys. Theor., EPF, Lausanne, Essential Singularity in Percolation Problems and Asymptotic Behaviour of Cluster Size Distribution
- S. Albeverio, R. Hoegh-Krohn, CPT, CNRS, Marseille, The Method of Dirichlet Forms, The Structure of Diffusion Processes
- C. Chandler, Hungarian Academy of Science, Budapest, On a Recent Paper of Bencze and Tandy
- P.I. Holod, A.U. Klimyk, Academy of Sciences, Kiev, Representations of the Group $Sp(n,1)$
- B. Gruber, A.U. Klimyk, Kiev, Representations of the Group $U(p,q)$ and $U(p+q)$ in the $U(p) \times U(q)$ Basis (in Russian)
- V.S. Ostrovsky, V.M. Loktev, Kiev, Microscopic Theory of Anisotropic Antiferroelectrics with Spin 3/2
- E.D. Belokolos, Kiev, On the Theory of Magnetoresistance of Metals Involving Magnetic Breakdown

- A.I. Solomon, Faculty of Math., Open University, Walton Hall, Milton Keynes, England,
The Ising Algebra
- D. Testard, CPT, CNRS, Marseille, Some Properties of the Representation of the Quasilocal
Observables in Statistical Mechanics and Quantum Field Theory
- O. Bratteli, A. Kishimoto, CPT, CNRS, Marseille, Generation of Semigroups and Two
Dimensional Quantum Lattice Systems
- V.K. Melnikov, Dubna, On a Family of Completely Integrable Evolution Systems (in Russian)
- B. Jouvet, Lab. de Phys. Theor., Universite de Paris XI, Orsay, Quantum Aspects of
Classical and Statistical Fields
- J. Fröhlich, IHES, Bures-sur-Yvette, France, Some Frontiers in Constructive Quantum Field
Theory and Equilibrium Statistical Mechanics
- J. Fröhlich, Y.M. Park, IHES, Bures-sur-Yvette, Correlation Inequalities and the Thermo-
dynamic Limit for Classical and Quantum Continuous Systems
- J.E. Nelson, C. Teitelboim, Joseph Henry Laboratories, Princeton Univ., Hamiltonian
Formulation of the Theory of Interacting Gravitational and Electron Fields
- H. Narnhofer, Institute f. theor. Physik, Vienna, Time Evolution in Equilibrium States
Without Time Automorphism
- W. Holsztynski, J. Slawny, Math. Department, Univ. of Western Ontario, London, Canada,
Peierls Condition and Number of Ground States
- R. Schrader, R. Seiler, Inst. f. theor. Physik, FU Berlin, A Uniform Lower Bound on the
Renormalized Scalar Euclidian Functional Determinant
- H. Englisch, Karl-Marx-Universität, Leipzig, Existence of $F(\Phi)_2$ -Fields with Space-Time-
Cut-Off
- P. Richter, Leipzig, Unitary Representations of Countable Infinite Dimensional Lie-Groups
- E.H. Lieb, Dept. of Physics, Princeton University, New Proofs of Long Range Order
- M. Aizenman, Dept. of Physics, Princeton University, On Existence of Flows in the Presence
of Sets of Singularities
- E. Chen, B. Demoen, Instituut voor Theor. Fysica, K.U. Leuven, Poisson Brackets and a
Commutation Theorem
- D. Brydges, P. Federbush, Dept. of Mathematics, Rockefeller Univ., New York, A New Form
of the Mayer Expansion in Classical Statistical Mechanics
- H.-R. Grümmer, Institut f. theor. Physik, Vienna, The Stability Theorem of Moser et al.
- P. Hajicek, Institut f. theor. Physik, Univ. Bern, Observables for Quantum Fields on Curved
Background
- F. Langouche, D. Roekaerts, E. Tirapegni, Institut f. theor. Physik, Univ. Leuven,
Functional Integral Methods for Stochastic Fields
- S. Naka, Dept. of Physics and Atomic Energy Research Institute, Nihon University, Kanda,
Tokyo, An Approach to the Bose Description of Fermions
- F. Lund, Institut for Advanced Study, Princeton, Classically Solvable Field Theory Model
- J.L. Challifour, D. Weingarten, Physics Dept. Indiana University, Bloomington,
A Theorem on Quark Confinement for Lattice Gauge Theories
- R. Delbourgo, Dept. of Physics, Univ. of Tasmania, Hobart, Tasmania 7001,
Solving the Gauge Identities

Books

W.O. Amrein, J.M. Rauch, K.B. Sinha,

Scattering Theory in Quantum Mechanics, Physical Principles and Mathematical Methods,
Lecture Notes and Supplements in Physics Series No. 16,
David Pines, Series Editor, 692 pages, \$ 17.50 or 29.50

J. Winogradzki,

Les Methodes Tensorielles de la Physique
Vol.I, Calcul Tensoriel dans sur Continuum Amorphe
Masson, Paris, ~ 480 p.

W. Thirring,

Klassische Feldtheorie, Mathematische Physik, Bd. II,
about 260 p., ISBN 3-211814752, Springer Wien, 1978

AMP members can obtain the book at a reduced price of DM 30

Conferences

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

Mathematical Problems in Feynman Path Integral, May 22-26, 1978, CPT, CNRS, Marseille
Further information: Mlle Maryse Cohen-Solal, Centre de Physique Theorique, CNRS,
31, chemin J. Aiguier, F-13274 Marseille Cedex 2, France

Mathematical Methods in the Theory of Elementary Particles, June 19-23, 1978, Liblicé Castle,
Further information: Prof. J. Niederle, Institute of Physics, Czechoslovak Academy of Sciences,
Na Slovance 2, 180 40 Prague 8, Czechoslovakia

Random Fields - Rigorous Methods of Statistical Mechanics, June 25 - July 1, 1979, Készthely,
Further information: Prof. J. Fritz, Mathematical Institute of the Hungarian Academy of
Science, 1053 Budapest, Realtanoda u. 13-15, Hungary

May 5, 1978

AMP NEWS BULLETIN

Progress Report

1. Dates and location for the general conference of AMP in 1979 have been decided. The conference will be held in Lausanne in the last week of August. Further information will be given in this bulletin and you may contact:
Prof. Philippe Choquard
Department of Physics
University of Lausanne
CH-1001 Lausanne, Switzerland.
2. For the year 1981 there is an official proposal of the Soviet Union to have the conference in the Soviet Union. Since the preparation of conferences in Eastern countries needs some time we should rather soon come to a general vote on the location of the 81-conference. Therefore I ask other people who are willing to organize the 81-conference to send me other proposals. I should have them by end of August 78 because I should give our Soviet colleagues an answer by the end of the year which requires a vote in the September bulletin.
3. So far the activities of AMP are financed by some institutions and we hope we can do this for the next future without individual membership fees. For this I ask for voluntary contributions of institutes which would help us to cover the expenses of the bulletin. Contributions should be mailed to:
Association for Mathematical Physics
Centre comptable-Faculté des Sciences
Université de Genève
Union de Banque Suisse Genève
No. 472 318 00 A.

Preprints

- Ph. Combe, R. Rodriguez, M. Sirugue - Collin, M. Sirugue, CPT, CNRS, Marseille.
An Uniqueness Theorem for Anticommutation Relations and Commutation Relations of Quantum Spin Systems
- V. Enns, Dept. of Mathematics, Indiana University, Bloomington, Asymptotic Completeness for Quantum Mechanical Potential Scattering
- F. Calogero, A. Degasperis, Istituto di Fisica, Università di Roma, Exact Solutions via the Spectral Transform of Certain Nonlinear Evolution Equations with Linearly x Dependent Coefficients,
Extension of the Spectral Transform Method for Solving Nonlinear Evolution Equations
- F. Calogero, A.M. Perelomov, Roma,, Some Diophantine Relations Involving Circular Functions of Rational Angles,
Properties of Certain Matrices Related to the Equilibrium Configuration of the One-dimensional Many-Body-Problem with the Pair Potentials $V_1(x) = -\log |\sin x|$ and $V_2(x) = 1/\sin^2 x$
- B. Baumgartner, Inst. f. Theor. Physik, Univ. Wien, A Class of Lower Bounds for Hamiltonian Operators
- E.J. Kanellopoulos, Th.V. Kanellopoulos, Inst. f. Theor. Physik, Univ. Tübingen,
The Dirac S-Matrix in the k -Plane

- R. Schrader, R. Seiler, Inst. f. Theor. Physik, FU Berlin, A Uniform Lower Bound on the Renormalized Scalar Euclidian Functional Determinant
- L.P. Horwitz, C. Piron, W.C. Schieve, Dept. of Physics and Astronomy, Tel Aviv University, Classical Relativistic Gibbs Ensembles
- F. Gesztesy, L. Pittner, Inst. f. Theor. Physik, Univ. Graz, On the Friedrichs Extension of Ordinary Differential Operators with Strongly Singular Potentials
- D. Atkinson, L.P. Kok, M. de Roo, Inst. f. Theor. Physik, Univ. Groningen, Crichton Ambiguities with Infinitely Many Partial Waves
- D. Atkinson, Univ. of Groningen, Analytic Extrapolations and Inverse Problems
- D. Jagolnitzer, B. Souillard, CEA, Saclay, Lee-Yang Theory and Normal Fluctuations
- J. Mickelsson, Dept. of Mathematics, Sammonkatu 6, SF-40100 Jyväskylä 10, Finland, Discrete Series of Lie Superalgebras
- M. Aizenman, E.B. Davies, E.H. Lieb, Princeton University, Positive Linear Maps which are Order Bounded on C^* -Subalgebras
- E.M. Harrell, MIT, Math. Dept., On the Rate of Asymptotic Eigenvalue Degeneracy
- H. Cornille, CEN, Saclay, Solutions of the Generalized Non Linear Schrödinger Equation in Two Spatial Dimensions, Inversion-like Integral Equations
- E.S. Fradkin, D.M. Shteingradt, Lebedev Physical Institute, Academy of Science, Moscow, A Continuous Integral Method for Spin Lattice Models
- J. Fröhlich; E.H. Lieb, IHES, Bures-sur-Yvette, Phase Transition in Anisotropic Lattice Spin Systems
- P. Basarab-Horwath, R.F. Streater, J. Wright, Bedford College, London, The Theory of Kinetic Change
- J. Avron, I. Herbst, B. Simon, Princeton University, Schrödinger Operators with Magnetic Field I: General Interactions, II Separation of Center of Mass in Homogeneous Magnetic Fields
- B. Simon, Princeton University, Maximal and Minimal Schrödinger Forms
- J. Audretsch, G. Schäfer, Fachbereich Physik, Univ. Konstanz, Thermal Particle Production in a Radiation Dominated Robertson-Walker Universe, Thermal Particle Production in a Contracting and Expanding Universe Without Singularity
- H. Bacry, CNRS, Marseille, Minimal Uncertainty States for Angular Momentum: Are They Significant for Physics
- A. Kishimoto, CNRS, Marseille, On Invariant States and the Commutant of a Group of Quasi-free Automorphisms of the CAR-Algebra III
- C. Chandler, Physikalisches Institut, Univ. Bonn, Spurious Solutions to N-Particle Scattering Equations, N-Body Scattering in Two Hilbert Spaces II: Asymptotic Limits
- M. Verri, V. Gorini, Istituto di Matematica, Univ. Milano, Quantum Dynamical Semigroups and Multipole Relaxation of a Spin in Isotropic Surroundings
- F. Rohrlich, Dept. of Physics, Syracuse Univ., Relativistic Hamiltonian Dynamics
- R. Delbourgo, P. Phocas-Cosmetatos, Phys. Dept., University of Tasmania, Hobart, Tasmania, Axially Gauge Covariant Electrodynamics
- J.P. Antoine, Université Catholique de Louvain-la-Neuve, Indefinite Metric and Poincare Covariance in Quantum Field Theory
- H. Narnhofer, W. Thirring, Inst. f. Theor. Physik, Univ. Wien, The Taming of the Dipole Ghost

- R.J. Myerson, Institute of Advanced Studies, Princeton, The Quasi-Equilibrium Statistical Mechanics of Two-dimensional Superfluids and the Two-Dimensional Coulomb Gas
- E.R. Caianiello, M. Marinaro, G. Scarpetta, Universita di Salerno, Non Perturbative Methods in Field Theory
- E.R. Caianiello, F. Fusco-Girant, M. Marinaro, Universita di Salerno, Renormalization Group Transformation by Moving Bands Approach
- F. Langouche, D. Rockaerts, E. Tirapegui, Leuven, Non Uniqueness of the Onsager-Machlup Function and Ordering of Operators
- P. Federbush, Dept. of Mathematics, University of Michigan, A Functional Relationship for the Two Point Correlation Function and Approximate Debye-Screening in Classical Statistical Mechanics
- D. Brydges, P. Federbush, Dept. of Mathematics, University of Michigan, A New Form of the Mayer Expansion in Classical Statistical Mechanics
- Yu.M. Lomsadze, E.P. Sabad, Academy of Science, Kiev, Abstract Concentrable and Reducible Linear Functionals and Generalized Functions (in Russian)
- V.M. Loktev, V.S. Ostrovsky, Kiev, On the Exciton Theory in Anisotropic Magnetic Crystals (in Russian)
- E.D. Belokolos, I.M. Pershko, Kiev, Relation between Potential Smoothness and Lacune Dimensions in Limiting Spectrum of Schrödinger Operator (in Russian)
- M.Yu. Kovalevsky, S.S. Plokhov, V.I. Prikhod'ko, Kiev, On Construction of Nonequilibrium Entropy for a System in Stochastic Field (in Russian)
- N.V. Laskin, S.V. Peletininsky, V.I. Prikhod'ko, Kiev, Statistical Mechanical System in Stochastic Fields (in Russian)
- M.Yu. Pasulova, Kiev, On the Evolution of Perturbations of Stationary Solutions for the Bogoliubov Kinetic Equations (in Russian)
- N.N. Bogoliubov, jr., D. Ya. Petrina, Kiev, On a Class of Model Systems Permitting a Decrease of the Hamiltonian Power in the Thermodynamic Limit
- N.S. Gonchar, Kiev, Construction of Convergent Expansions for Correlation Functions in Classical Statistical Mechanics
- I.A. Vakarchuk, Kiev, A Microscopic Theory of the Second-order Phase Transition in Bose Liquid. A Recursion Formula.
- P. Droz-Vincent, College de France, Dep. de Mecanique Analytique, Action at a Distance and Relativistic Wave Equations for Spinless Quarks
- J. Messer, Inst. f. Theor. Physik, Universität Wien, Quantum Langevin Systems
- D. Brydges, P. Federbush, Rockefeller University, New York, A Lower Bound for the Mass of a Random Gaussian Lattice
- A.S. Wightman, IHES, Convexity and the Notation of Equilibrium State in Thermodynamics and Statistical Mechanics
- E. Seiler, Princeton University, An Upper Bound on the Color Confining Potential
- F. Gesztesy, L. Pittner, Inst. f. Theor. Physik, Universität Graz, Uncertainty Relations and Quadratic Forms
- P.C. Sabatier, Physique Mathematique, Montpellier, Probleme Inverse des Modes Normaux d'une Sphere Elastique (in French)
- W. Cegla, A. Z. Jadczyk, University of Wroclaw, Causal Logic of Minkowski Space
- Ch. Radin, Dept. of Math. Univ. of Texas, Austin, Signal Propagation in Lattice Models of Quantum Many Body Systems
- P. Stichel, Univ. Bielefeld, Planar Approximation for the Two Point Function as a Fixed Point Problem

- G.L. Sewell, Queen Mary College, London, Quantum Theory of Irreversible Processes
 W. Thirring, R. Wallner, Inst. f. Theor. Physik, Univ. Wien, The Use of Exterior Forms
 in Einstein's Gravitation Theory
- S. Albeverio, F.E. Fenstad, R. Hoegh-Krohn, CNRS, Marseille, Singular Perturbations and
 Non Standard Analysis
- A. Frigerio, Inv. Milano, Stationary States of Quantum Dynamical Semigroups
- S. Albeverio, R. Hoegh-Krohn, CPT, CNRS, Marseille, Ergodic Actions by Compact Groups
 on Von Neumann Algebras
- F. Rohrlich, Dept. of Physics, Syracuse University, Syracuse, N.Y., Relativistic Hamiltonian
 Dynamics
- F. Langouche, D. Roekaerts, E. Tirapegui, Inst. f. Theor. Physik, Universität Leuven,
 Steepest Descent Approximation for the Fokker Planck Equation
- G.G. Emch, J.C. Varilly, Dept. of Mathematics, University of Rochester, N.Y., A Remark
 on Dilating Semigroups of Completely Positive Mappings
- W. Troost, J. Verwaest, Inst. f. Theor. Physik, Universität Leuven, Radiation Formulae from
 the Fluctuation Dissipation Theorem
- C. Tsallis, J.W. Furtado Valle, CBPF, Rio de Janeiro, Concerning the Use of the Variational
 Method in Statistical Mechanics of Anharmonic Systems
- F. Brouers, C.M. Chaves, A.A. Gomes, A. Troper, CBPF, Rio de Janeiro, Phase Transitions
 in an Extended Hubbard Model
- E. Chen, Dept. of Mathematics, PUC, Rio de Janeiro, Markovian Behaviour on Systems of
 Imprimitivity
- J. Bricmont, J.R. Fontaine, L. Landau, Phys. Theor., Louvain-la-Neuve, Absence of Symmetry
 Breakdown and Uniqueness of the Vacuum for Multicomponent Field Theories
- G. Morchio, F. Strocchi, Università Pisa, Infrared States and Asymptotic Completeness in
 Quantum Electrodynamics
- J. Messer, Inst. f. Theor. Physik, Univ. Wien, Decay of Local Correlations and Absence of
 Phase Transition
- J.L. Lebowitz, H. Spohn, Rutgers University, New Brunswick, Transport Properties of the
 Lorentz Gas: Fourier's Law

Books

- F. Calogero (editor), Nonlinear Evolution Equations Solvable by the Spectral Transform
 Series "Research Notes in Mathematics", Pitman Publishing LTB
- K. Chadan, P.C. Sabatier, Inverse Problems in Quantum Scattering Theory,
 Springer Verlag, New York-Heidelberg-Berlin, Price: US \$ 29.80
- P. Roman, Some Modern Mathematics for Physicists and Other Outsiders I, II
 Pergamon Press, USA, Maxwell House, Fairview Park, Elmsford, N.Y. 10523
 Canada, 207 Queen's Way West, Toronto 117, Ontario
 England, Headington Hill Hall, Oxford
 Germany, D-3300 Braunschweig, Burgplatz 1
 Australia, Rushcutters Bay, Sydney, NSW

Conferences

Nonlinear Problems in Theoretical Physics, June 5-10, 1978, Jaca, Huesca, Spain

Further information: Prof. A.F. Ranada, Departamento de Fisica Teorica,
Facultad de Ciencias Fisicas, Universidad Complutense, Madrid 3,
Spain

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

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

Mathematical Problems in Feynman Path Integral, May 22-26, 1978, CPT, CNRS, Marseille

Further information: Mlle Maryse Cohen-Solal, Centre de Physique Theorique, CNRS,
31, chemin J. Aiguier, F-13274 Marseille Cedex 2, France

Mathematical Methods in the Theory of Elementary Particles, June 19-23, 1978, Liblice Castle,

Further information: Prof. J. Niederle, Institute of Physics, Czechoslovak Academy of Sciences,
Na Slovance 2, 180 40 Prague 8, Czechoslovakia

Random Fields - Rigorous Methods of Statistical Mechanics, June 25 - July 1, 1979, Keszthely,

Further information: Prof. J. Fritz, Mathematical Institute of the Hungarian Academy of
Science, 1053 Budapest, Realtanoda u. 13-15, Hungary

Supplementum of Membership List

A.P. Calleja, Department of Mathematics, The Polytechnic, Msida, Malta

J. Messer, Institut für Theoretische Physik, Universität Göttingen, Bunsenstr. 9, D-34 Göttingen,

P.K. Tam, Mathematics Department, Science Centre, The Chinese University of Hong Kong

A. Trautman, Institute of Theoretical Physics, University of Warszawa, ul. Hoza 69,
Warszawa, Poland

Change of address:

Shin-ichi Ohwaki, Department of Mathematics, Faculty of General Education, Kumamoto Univ.
2 Kurokami, Kumamoto City, 860 Japan

June 21, 1978

AMP NEWS BULLETIN

Conferences

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

Differential Geometric Methods in Mathematical Physics, July 13 - 15, 1978, Clausthal, BRD
Further information: Prof. Dr. H.D. Doebner, Institut für Theoretische Physik
Technische Universität Clausthal, Leibnizstraße,
D-3392 Clausthal-Zellerfeld

The Integrative Conference on Group Theory and Mathematical Physics,
(VII International Group Theory Colloquium), Sept. 11 - 16, 1978
Austin, Texas

Further information: Prof. Arno Böhm, Department of Physics, The University of Texas
at Austin, Austin, Texas 78712

AMP-Conference, Aug. 27 - 31, 1979, Lausanne, Switzerland.

Further information: Prof. Ph. Choquard, Department of Physics, University of Lausanne,
CH-1001 Lausanne, Switzerland

Random Fields - Rigorous Methods of Statistical Mechanics, June 25 - July 1, 1979, Keszthely,
Further information: Prof. J. Fritz, Mathematical Institute of the Hungarian Academy of
Science, 1053 Budapest, Reáltanoda u. 13-15, Hungary

Preprints

- R. W. Ochs, Universität München, When Does a Projective System of State Operators Have a Projective Limit?
- J.L. Lebowitz, H. Spohn, Rutgers University, Transport Properties of the Lorentz Gas: Fourier's Law
- E. Gava, R. Jengo, University di Trieste, A Four-Dimensional Non-linear σ -Model
- K. Drühl, Max-Planck-Institut, Starnberg, On the Classical Limit of Relativistic Quantum Theories with Arbitrary Spin
- K.D. Rothe, J.A. Swicca, Pontificia Universidade Catolica do Rio de Janeiro, Path-Integral Representation for Tunneling Amplitudes in the Schwinger Model
- E.G. Kalnins, W. Miller, University of Waikato, Hamilton, New Zealand, Nonorthogonal Separable Coordinate Systems for the Flat 4-Space Helmholtz Equation
- G.A. Lassner, Dubna, Operator Symbols in the Description of Observable-State Systems
- B. Gidas, Dept. of Mathematics, Rockefeller University, The Glimm-Jaffe-Spencer Expansion for the Classical Boundary Conditions and Coexistence of Phases in the $\lambda \Phi_4^2$ Euclidian (Quantum) Field Theory
- H. Cornille, CEN, Saclay, Confined Solutions of Multidimensional Inversion Equations
Inversion-like Integral Equations
Solutions of the Generalized non linear Schrödinger Equation in Two Spatial Dimensions
- B. Mühlischlegel, Theor. Physik, Universität Köln, Path-Integral Associated with the Fokker-Planck Equation,
Functional-Integral Approach to Some Models of Solid-State Physics
- D. Hone, B. Mühlischlegel, D.J. Scalapino, Physics Dept., University of California, Santa Barbara, Theory of Light Emission from Small Particle Tunnel Functions

- R K. Yasue, Dept. of Physics, Nagoya University, Nagoya 464, Japan, Quantum Mechanics of Non-Conservative Systems
- L.H. Ford, Dept. of Physics, University of Wisconsin, Milwaukee, Quantum Coherence Effects and the Second Law of Thermodynamics, The Interaction of an Atom with Electromagnetic Vacuum Fluctuations in the Presence of a Pair of Perfectly Conducting Plates
- F. Gesztesy, L. Pittner, Universität Graz, Diffraction of Non-Relativistic Electron Waves by a Cylindrical Capacitor
- E.B. Davies, Math. Institute, Oxford, Master Equations: A Survey of Rigorous Results, Dynamical Semigroups, Generators and Measurement Theory Uniqueness of the Standard Form of the Generator of a Quantum Dynamical Semigroup
- E.B. Davies, B. Simon, Princeton University, Scattering Theory for Systems with Different Spatial Asymptotics on the Left and Right
- A.J. Bracken, Dept. of Math., University of Queensland, Brisbane, Australia, The Point Form of Quantum Dynamics and a Four Vector Co-ordinate-operator for a Spinless Particle
- B. Demoen, P. Vanhuwerzijn, A. Verbeure, Inst. f. theor. Physics, K.U. Leuven, Energetically Stable Systems
- A. Verbeure, K.U. Leuven, Thermodynamic Stability and Equilibrium
- J.V. Pule, A. Verbeure, K.U. Leuven, The Classical Limit of Quantum Dissipative Generators
- Ch. Radin, Dept. of Mathematics, University of Texas, Austin, Signal Propagation in Lattice Models of Quantum Many-Body Systems
- J. Fröhlich, R. Israel, E.H. Lieb, B. Simon, IHES, Bures-sur-Yvette, Phase Transitions and Reflection Positivity, I. General Theory and Long Range Lattice Models
- Y. Ne'eman, T. Regge, University of Texas, Austin, Gauge Theory of Gravity and Supergravity on a Group Manifold
- D.H. Mayer, RWTH Aachen, A Generalization of a Theorem by Ruelle on Composition Operators on Banach Spaces of Holomorphic Functions
- H. Englisch, Karl-Marx-Universität, Leipzig, Existence of $F(\Phi)_2$ -fields with Space-Time Cut-off
- W. Kerler, Univ. Marburg, Definition of Path Integrals and Rules for Non-linear Transformations
- Y.S. Kim, M.E. Noz, Dept. of Physics and Astronomy, University of Maryland, Physical Basis for Minimal Time-Energy Uncertainty Relations
- R. Weder, Princeton University, The Unified Approach to Spectral Analysis I, II, Absence of Classical Lumps in Constrained Systems, Instantons and Renormalization
- V.I. Karloukovski, Dubna, Classical Dynamical Systems with the Symmetry of the Kepler Problem
- P.C. Sabatier, Lab. de Physique Mathématique, Montpellier, Spectral and Scattering Inverse Problems
- E.M. Harrell, MIT, Cambridge, On the Band-Structure of a One-dimensional Periodic System in a Scaling Limit
- R. Friedberg, T.D. Lee, Columbia University, New York, QCD and the Soliton Model of Hadrons
- A.L. Carey, C.A. Hurst, Adelaide, Applications of an Algebraic Quantization of the Electromagnetic Field
- H. Hogreve, R. Schrader, R. Seiler, FU Berlin, A Conjecture on the Spinor Functional Determinant

- Y. Ne'eman, T.N. Sherry, University of Texas, Austin, Graded Spin-Extension of the Algebra of Volume-Preserving Deformations
- Y. Nutku, University of Princeton, Self-Dual Yang-Mills Fields as Harmonic Mappings of Riemannian Manifolds
- F. Constantinescu, H.M. Ruck, Inst. f. Applied Math., Univ. Frankfurt, Phase Transition in a Continuous Three States Model with Discrete Gauge Symmetry.
Quantum Field Theory Potts Model
- F. Constantinescu, L. Pilz, Univ. Frankfurt, Gaussian Boundary Conditions for Ising-like Spin Models
- F. Constantinescu, B. Ströter, Univ. Frankfurt, Convex Combinations of Inverse Jacobi Matrices
- T. Jonsson, O. Mc. Bryan, F. Zirilli, J. Hubbard, Harvard University, An Existence Theorem for Multimeron Solutions to Classical Yang-Mills Field Equations
- E.B. Davies, H. Spohn, Oxford, Open Quantum Systems with Time-Dependent Hamiltonians and Their Linear Response
- P.A. Vuillermot, Princeton University, Intertwining Relations between the Dynamics of the Infinite Classical and Quantum Heisenberg Models: A New Application of Trotter Approximations and of the Coherent State Formalism
- M. Requardt, Göttingen, Some Results Concerning the Influence of Goldstone Excitations on the Space-time Cluster Properties of Certain Correlation Functions in Quantum Statistical Mechanics
- G. Marmo, E.J. Saletan, A. Simoni, Istituto di Fisica Teorica, Univ. di Napoli, Reduction of Symplectic Manifolds Through Constants on the Motion
- T. Hoffmann-Ostenhof, M. Hoffmann-Ostenhof, R. Ahlrichs, Universität Wien, Schrödinger Inequalities and Asymptotic Behaviour of Many Electron Densities

Supplementum of the Membership List

- H.D. Doebner, Institut für Theoretische Physik der Technischen Universität Clausthal, Leibnizstraße, D-3392 Clausthal-Zellerfeld
- J.-J. Loeffel, Institut de Physique-Theorique, Bat. des sciences physiques - Dorigny, CH-1015 Lausanne, Suisse
- R. Wanders, Institut de Mineralogie, Bat. sc. physiques - Dorigny, CH-1015 Lausanne, Suisse
- Ph. Martin, Laboratoire de physique theorique, 14, av. de l'Eglise Anglaise, CH-1006 Lausanne, Suisse
- Ch. Gruber, Laboratoire de physique theorique, 14, av. de l'Eglise Anglaise, CH-1006 Lausanne, Suisse
- H.J. Raveche, National Bureau of Standards, Washington D.C. 20234, U.S.A.
- A.L. Carey, Dept. of Mathematical Physics, University of Adelaide, Adelaide, South Australia
- N. Giovannini, Dept. of Theoretical Physics, University of Geneva, CH-1211 Geneva 4
- G.O.S. Ekhaguere, Dept. of Mathematics, University of Ibadan, Ibadan, Nigeria
- R.J. Plymen, Dept. of Mathematics, The University, Manchester, England
- M. Toda, Yokohama National University, Dept. of Applied Mathematics, Faculty of Engineering, Oh-oka 2-31-1, Minami-ku, Yokohama 232, Japan

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September 1st, 1978

AMP NEWS BULLETIN

Progress Report

1. For the conference in 81 there have been, besides the proposal by N.N. Bogoliubov to have the conference in the USSR, two other proposals. One is by R. Schrader, B. Schroer, R. Seiler, and D.A. Uhlenbrock to have it at the Free University in Berlin and one by M.E. Mayer to have it at the University of California, Irvine. According to our decision at the Rome conference the location of the main conference is decided by a vote among all members. Therefore I ask you to use the bottom of the page to give the order of your preference for the three proposal. You should consider that AMP is an international association for all of mathematical physics and a due rotation of the conference should be observed.
2. For the conference of 83 there is a proposal to have it in Bielefeld.
3. May I remind you that the dead line for the election of the new executive committee is end of September.
4. Remember that preprints which you want to be listed in the bulletin should be marked with AMP and till the end of the year sent to

Dr. Heide Narnhofer
Institut für Theoretische Physik
Universität Wien
Boltzmannngasse 5
A-1090 Wien, Austria

To be mailed till mid October 1978 to

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Preprints

- J.P. Eckmann, H. Epstein, IHES, Bures, Time Ordered Products and Schwinger Functions
 J. Messer, Vienna, Friction in Quantum Mechanics
 W. Ochs, Univ. München, Concepts of Convergence for a Quantal Law of Large Numbers
 J.L. van Hemmen, R.G. Palmer, Duke University, N.C., The Replica Method and a Solvable Spin Glass Model
 L.P. Horwitz, L.C. Biedenharn, Tel Aviv University, Ramat-Aviv, Exceptional Gauge Groups and Quantum Theory
 P. Leyland, J.E. Roberts, CNRS, Marseille, The Cohomology of Nets over Minkowski Space
 Ph. Combes, R. Rodriguez, M. Sirugue Collin, M. Sirugue, CNRS, Marseille, On the Quantization of Spin Systems and Fermi Systems
 O. Bratteli, CNRS, Marseille, Crossed Products of UHF Algebras by Product Type Actions
 F. Gesztesy, L. Pittner, Univ. Graz, Diffraction of Relativistic Electron Waves by a Cylindrical Capacitor
 S. Albeverio, J.E. Fenstad, R. Hoegh-Krohn, CNRS, Marseille, Singular Perturbations and Non-Standard Analysis
 P. Garbaczewski, Wrocław, Dynamics of Ground States: I Interacting Bose Fields, II Local Rearrangement of Quantum Statistics
 M. Ausloos, A. Pekalski, Wrocław, Physical Properties of a Spin Model Described by an Effective Hamiltonian with two Kinds of Random Magnetic Bonds
 R. Gielera, Wrocław, Mayer Equation for Bose Field Theoretical Models, Thermodynamical Limit for Canonical Correlation Functions in $P_{(\varphi_\epsilon),0}$ Models On Some Applications of the BBKGY Hierarchy in the Euclidian (Quantum) Field Theory I
 Local Operator Products for Some Nonpolynomial Interactions
 On the Borchers Class of the Two-dimensional Sine Gordon Model
 W. Garczynski, J. Hanckowiak, Wrocław, Restoration of a Functional From Its Functional Derivatives
 A. Pekalski, Wrocław, Some Critical Properties of a Three-dimensional System of Randomly Mixed Heisenberg and Ising Bonds
 I.S. Zlatev, Dubna, On the Sense of Phase Space Quasidistributions in Quantum Mechanics (in Russian)
 J. Nyiri, Ya. A. Smorodinsky, Dubna, The Basis Function Transformations in the Three Particle System (in Russian)
 V.S. Gerdjikov, P.P. Kulish, Dubna, Completely Integrable Hamiltonian Systems, Connected with the Non-Self-Adjoint Dirac Operator
 R. Beig, Univ. Wien, ADM-Energy and g_{00}
 D. Arnal, J.C. Cortet, Univ. de Dijon, Geometrical Theory of Contractions of Groups and Representations
 F. Langouche, D. Roekaerts, E. Tirapegni, K.U. Leuven, Functional Integrals and the Fokker-Planck Equation
 D. Bolle, T.A. Osborn, K.U. Leuven, Time Delay in N-Body Scattering
 M. Guenin, J. Simon, Univ. de Geneve, Space-like Fields and Non Unitary Representations of the Poincare Group
 T. Dereli, P.C. Aichelburg, Univ. Wien, Exact Plane Wave Solutions of O(2) Extended Supergravity

- Z. Haba, Univ. Bielefeld, A Scale Limit of φ^2 in φ^4 Euclidian Field Theory
- H.D.I. Abarbanel, Fermi Lab., The Behaviour of Homogeneous Turbulence Mixed at Long Wavelengths
- I. Daubechier, Vrije Universiteit Brussel, An Application of Hyperdifferential Operators to Holomorphic Quantization
- A. Galindo, Univ. of Madrid, A Remarkable Invariance of Classical Dirac Lagrangians
- R.F. Alvarez-Estrada, A. Galindo, Madrid, Bound States in Some Coulomb Systems
- P. Federbush, Univ. of Michigan, Positivity Conditions on Correlation Functions that Imply Debye Screening
- D. Petrina, Kiev, Mathematical Description of the Evolution of Infinite Systems of Classical Statistical Physics: Locally Perturbed One-dimensional Systems
- A.A. Gurin, O.L. Kotlyarov, Kiev, On the Principle of One Particle Motion Markovity in Kinetic Theory
- R.R. Levitsky, I.R. Zachek, V.I. Varanitsky, Kiev, The Distribution Functions and Relaxation Processes in the Ising Model. The Cluster Approximation (in Russian)
- V.A. Zagrebnoy, L.A. Pastur, Kiev, On Singular Interaction Potentials in Classical Statistical Mechanics (in Russian)
- A. Weidemann, Univ. of Maryland, College Park, Quantum Fields in a Lorentz Basis
- G. Bencze, Hungarian Academy of Science, Budapest, General Algebraic Treatment of Identical Particles in Scattering Processes
- I. Montvay, Budapest, Equations of State for Relativistic Quantum Ideal Gases of Massive Particles
- M. Guenin, J. Simon, Univ. de Geneve, Space-like Fields and Non Unitary Representations of the Poincare Group
- A.S. Davydov, Kiev, Solitons in Molecular Systems
- A. Fernandez-Pacheco, Stanford Univ., Renormalization of the One-dimensional Quantum Ising Model
- E. Fradkin, B.A. Huberman, S.H. Shenker, Stanford, Gauge Symmetries in Random Magnetic Systems
- S. Albeverio, M. Ribeiro de Faria, R. Hoegh-Krohn, CNRS, Marseille, Stationary Measures for the Periodic Euler Flow in Two Dimensions
- C. Teitelboim, Inst. f. Adv. Studies, Princeton, The Hamiltonian Structure of Space Time
- H.A. Kastrup, Aachen, On the Relation of Regge Trajectories to Degenerate Classical Solutions of Equations of Motion
- D. Aerts, I. Daubechier, Vrije Univ. Brussel, A Mathematical Condition for a sublattice of a Propositional System to Represent a Physical Subsystem, with a Physical Interpretation,
A characterization of Subsystems in Physics
Physical Justification for Using the Tensor Product to Describe Two Quantum Systems as the Joint System,
About the Structure-preserving Maps of a Quantummechanical Propositional System,
A Connection Between Propositional Systems in Hilbertspaces and Von Neumann Algebras
- O. Steinmann, Bielefeld, Quantum Fields in Two-Soliton Sectors,
- G. Lindblad, Royal Institute of Technology, Stockholm, Gaussian Quantum Stochastic Processes on the CCR Algebra
- H. Roos, Göttingen, KMS-Condition Without Time Automorphisms of the Observable Algebra

- W. Fuller, A. Lenard, Generalized Quantum Spins, Coherent States and Lieb Inequalities
A. Lenard, Princeton, Thermodynamic Proof of the Gibbs Formula for Elementary Quantum Systems
- L. Abellanas, A. Galindo, Madrid, A Generalized Variational Algebra and Conserved Densities for Linear Evolution Equations
Conserved Densities for Non Linear Evolution Equations I. Even Order Case
- A. Galindo, L. Martinez Alonso, Madrid, Kernels and Ranges in the Variational Formalism
- A. Galindo, Madrid, An Algorithm to Construct Evolution Equations with a Given Set of Conserved Densities
On the Variational Equation $\frac{\delta}{\delta n} f = a$
- M. Josifescu, Bucarest, SO(4,2) Algebra and Central Motion
- M. Barnsley, D. Bessis, P. Moussa, Saclay, CEN, The Diophantine Moment Problem and the Analytic Structure in the Activity of the Ferromagnetic Ising Model
- J. Weyer, Univ. Köln, Regularität in der nichtlinearen Spektraltheorie
- T. Kupper, Univ. Köln, The Lowest Point of the Continuous Spectrum as a Bifurcation Point
- H. Rommerskirchen, Univ. Köln, Monotone Perturbations of Maximal Monotone Operators
- N.W. Bazley, Univ. Köln, Approximation of Wave Equations with Reproducing Nonlinearities
- I.W. Herbst, Univ. of Virginia, Dilation Analyticity in Constant Electric Field I, The Two Body Problem
- I.W. Herbst, B. Simon, Princeton, The Stark Effect Revisited
Some Remarkable Examples in Eigenvalue Perturbation Theory
- P. Hirschfeld, Princeton, Strong Evidence that Gribov Copying Does Not Affect Gauge Theory Functional Integral
- B. Gidas, Rockefeller Univ., Deformations and Spectral Properties of Merons
- P. Deift, W. Hunziker, B. Simon, E. Vock, ETH Zürich, Pointwise Bounds on Eigenfunctions and Wave Packets in N-Body Quantum Systems IV
- W. Drissler, L. Landau, J. Fernando Perez, Bedford College, Estimates of Critical Lengths and Critical Temperatures for Classical and Quantum Lattice Systems
- K.R. Ito, Kyoto, Construction of Quantum Field Models Including Fermions (QED and Yukawa Models)
- E.H. Lieb, Univ. Princeton, Proof of an Entropy Conjecture of Wehrl
- R.S. Schor, Rockefeller Univ., The Instanton Gas for the Anharmonic Oscillator
- J. Messer, B. Baumgartner, Univ. Wien, Nonlinear Von Neumann Equations for Quantum Dissipative Systems
- Z. Horvath, L. Palla, IAEA, Trieste, Spontaneous Compactification and Monopoles in Higher Dimensions
- F. Calogero, A. Degasperis, IAEA, Trieste, Conservation Laws of Classes of Non-Linear Evolution Equations Solvable by the Spectral Transform
- A. Moussiaux, A. Ronveaux, Namur, Belgium, Electrostatic Capacity of Two Unequal Adhering Spheres
- R.T. Glassey, W.A. Strauss, Indiana Univ., Bloomington, Conservation Laws for the Classical Maxwell-Dirac and Klein-Gordon Dirac Equations,
Decay of Yang-Mills Fields
- J.P. Gazeau, M.Cl. Dumont-Lepage, A. Ronveaux, Namur, Belgium, Spectrum of Singular Potentials Via SL(2,R) Acting on Quaternions

- H. Grosse, A. Martin, CERN, Geneva, An Inequality on the Mass of the Bottom Quark
Theory of the Inverse Problem for Confining Potentials I Zero Angular Momentum
- M.K.F. Wong, Fairfield Univ., Connecticut, Invariant Operators of $IU(n)$ and $IO(n)$ and
Their Eigenvalues
- M. Jimbo, Kyoto, Studies on Holomic Quantum Fields IX
- J.V. Pule, A. Verbeure, K.U. Leuven, Dissipative Operators for Infinite Classical Systems
and Equilibrium
- L.P. Horwitz, I.M. Sigal, Tel Aviv Univ., On a Mathematical Model for Non-Stationary
Physical Systems

New Members

- D. Bollé, Instituut voor Theoretische Fysika, Katholieke Universiteit Leuven,
Celestijnenlaan 200D, B-3030 Leuven, Belgium
- W.-D. Garber, Institut für Theoretische Physik, Universität Göttingen, Bunsenstr. 9,
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- P.J. McCarthy, Mathematics Department, Bedford College, Regent's Park, London NW1 4NS
- C.J. Isham, Physics Department, Imperial College, London SW7
- R. Schrader, Freie Universität Berlin, Fachbereich Physik, Arnimallee 3, 1000 Berlin 33
- D.A. Uhlenbrock, Freie Universität Berlin, Fachbereich Mathematik, Arnimallee 2-6,
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- G. Velo, Istituto di Fisica "A Righi", Università degli Studi di Bologna, Via Irnerio 46,
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- A. Jensen, Department of Mathematics, University of California, Berkeley, CA 94720, USA
- J.D. Morgan III, Department of Physics, Jadwin Hall, Princeton University, Princeton,
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- J. Nuttall, The University of Western Ontario, Department of Physics, Physical Sciences
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- J.L. Van Hemmen, Institut für Angewandte Mathematik, Universität Heidelberg,
Im Neuenheimer Feld 294, D-6900 Heidelberg 1, BRD
- E. Chen, E.&K. Research Lab., 167 Oak St., Westwood, MA 02090, USA
- T.M. Karade, Department of Mathematics, Nagpur University, Nagpur-440010, India

Open Position

Georg-August-Universität Göttingen: Lehrstuhl für Theoretische Physik (AH 4). Applications
with curriculum vitae, scientific and pedagogical biography until October 15, 1978 to
Vorsitzenden des Fachbereichs Physik, Lotzestr. 16/18, D-3400 Göttingen, BRD.

November 14, 1978

AMP NEWS BULLETIN

Progress Report

1. The composition of the new Executive Committee is as follows: Araki, Borchers, Faddeev, Hunziker, Lieb, Penrose, Piron, Raczka, Sternheimer, Streater, Streit, Wightman.
2. For the 81-conference the majority of votes was for the Free University in Berlin.

W. Thirring

Conferences

Quantum Fields - Algebras, Processes, ZiF Bielefeld, December 1 - 7, 1978

Further information: L. Streit, Universität Bielefeld, ZiF, D-4800 Bielefeld 1, Wellenberg 1, Postfach 8640.

Operator Algebras in Mathematical Physics, University of Rochester, May 21 - 25, 1979

Further information: G.G. Emch, Depts. of Mathematics and Physics, University of Rochester, Rochester, NY 14627, USA.

Feldtheoretische Methoden der Elementarteilchenphysik, Kaiserslautern, August 13 - 24, 1979

Further information: W. Rühl, Universität Kaiserslautern, D-6750 Kaiserslautern, Pfaffenbergstraße 46/551.

AMP-Conference, Lausanne, proposed date: August 20 - 25, 1979

Further information: Ph. Choquard, Dept. of Physics, EPF Lausanne, CH-1001 Lausanne, 14, av. de l'Eglise Anglaise.

Quantum Dynamics of Molecules: The New Experimental Challenge to Theorists, Cambridge, England, Sept. 15 - 29, 1979

Further information: R.G. Woolley, Cavendish Laboratory, Cambridge, England.

Nonlinear Dynamics, New York Academy of Sciences, fall 1979 (Nov. 6 - 10 ?)

Further information: R.H.G. Helleman, School of Physics, Georgia Tech, Atlanta, Georgia 30332.

Open Position

Post-Doctoral position for the academic year 1979-80 available at the Harvard University, Lyman Laboratory of Physics. Candidates write to A. Jaffe, Lyman Laboratory of Physics, Harvard University, Cambridge, Mass. 02138, USA.

Preprints

- R.B. Pearson, Inst. f. Advanced Study, Princeton, Application of Jastrow Wave Functions to Quantum Lattice Spin Theories
- U. Cattaneo, Neuchatel, On Mackey's Imprimitivity Theorem
- W.A. Majewski, CNRS, Marseille, Studies on the C^* -Algebraic Formulation of the Interaction of the Electromagnetic Field with the Matter
- J.M. Souriau, CNRS, Marseille, Thermodynamique et Geometrie (in French)
- I. Farkas, G. Pocsik, ITP-Budapest Univ., Conservation Laws in Bilocal Quantum Field Theory
- E.H. Lieb, B. Simon, Princeton University, Monotonicity of the Electronic Contribution to the Born-Oppenheimer Energy
- V. Enns, Univ. Bielefeld, Asymptotic Completeness for Quantum Mechanical Potential Scattering II Singular and Long Range Potentials
- M. Bordag, Karl-Marx-Universität, Leipzig, An Operator-product light-cone Expansion is given and proved in Perturbation Theory (in Russian)
- A. Uhlmann, Leipzig, Some Remarks on Reflection Positivity
- J.F. Cornwell, Univ. of St. Andrews, Fife, Scotland, Direct Determination of the Langland's Decompositions for the Parabolic Subalgebras of Non-compact Semi-simple Real Lie Algebras
- Y. Ne'eman, D. Sijacki, Tel Aviv, Metric Affine Gravity, Strong Interactions and $GL(4R)$ Band-Spinors
Unified Affine Gauge Theory of Gravity and Strong Interactions with Finite and Infinite $\overline{GL}(4,R)$ Spinor Fields
- Y. Ne'eman, T. Regge, J. Thierry-Mieg, Tel Aviv, Ghost-fields, BRS and Extended Supergravity as Applications of Gauge Geometry
- B. Mielnik, King's College, London, Mobility of Non-linear Systems
- B. Mielnik, G. Tengstrand, Stockholm, Nelson-Brown Motion, Some Question Marks
- N.F. Truskova, Dubna, Elementary Solutions of the Two-Centre Problem in Quantum Mechanics and the Representations of $O(4) \otimes O(2,2)$ Group
- G. Cassinelli, P. Truini, Univ. di Genova, Conditional Probabilities on Orthomodular Lattices
- V.V. Dodonov, V.I. Man'ko, ICTP, Trieste, Integrals of Motion of Pure and Mixed Quantum Systems
- M. Aizenman, E.H. Lieb, Princeton University, On Semi-Classical Bounds for Eigenvalues of Schrödinger Operators
- A. Pandey, Univ. of Rochester, Statistical Properties of Many-Particle Spectra III, Ergodic Behavior in Random-Matrix Ensembles
- I. Daubechies, A. Grossmann, Vrije Univ., Brussel, An Integral Transform Related to Quantization
- S. Albeverio, M. Ribeiro de Faria, R. Hoegh-Krohn, CNRS, Marseille, Stationary Measures for the Periodic Euler Flow in Two Dimensions
- D. Brydges, J. Fröhlich, E. Seiler, IHES, Bures-sur-Yvette, On the Construction of Quantized Gauge Fields I, General Results
- E.G. Kalnins, H.L. Manocha, W. Miller, Univ. of Waikota, Hamilton, New Zealand, The Lie Theory of Two-Variable Hypergeometric Functions
- H. Roos, Göttingen, KMS-Condition without Time Automorphisms of the Observable Algebra
- J. Audretsch, Konstanz, Particle Creation by Time Dependent Electric and Gravitational Fields: A Transcription of Methods
- A. Kishimoto, CNRS, Marseille, Conditions for Dissipative Operators to the Prgenerators

- J.D. Hennig, ICTP, Trieste, G-Structures and Space-Time Geometry I: Geometric Objects of Higher Order
- P. Hirschfeld, Princeton University, Strong Evidence that Gribov Copying Does Not Affect Gauge Theory Functional Integral
- A. Bassetto, CERN, Sequential Jet Decay Described by an Inönü-Wigner Contraction of the Lorentz Group
- L.E. Thomas, Univ. of Virginia, Charlottesville, Quantum Heisenberg Ferromagnets and Stochastic Exclusion Processes
- G.G. Emch, J.C. Varilly, Univ. of Rochester, Some Remarks on Dilating Semigroups of Completely Positive Mappings
On the Standard Form of the Bloch Equation
- B. Simon, Princeton University, Phase Space Analysis of Simple Scattering Systems: Extension of Some Work of Enns.
- G.G. Emch, K.B. Sinha, Univ. de Sao Paulo, Weak Quantization in a Non Perturbative Model
- R. Arnowitt, P. Nath, Northeastern University, Boston, Preserved Gauges, Broken Gauges and Fictitious
Goldstone Fields in Gauge Sypersymmetry
Superspace Formulation of Supergravity
- D. Agasu, Univ. of Rochester, Large Deformations and Dissipation in a Random-Matrix Model Approach
- E.M. Zeiger, Stanford University, Quantum Mechanical Few-Body Scattering Equations with Half-on-Shell-Energy-Independent Subsystem Input
- T. Barnes, G.I. Ghandour, ICTP, Trieste, Grassmann Functional Schrödinger Description of Fermions
- M. Jaulent, J.J.P. Leon, Montpellier, Nonlinear Evolution Equations Associated with a Massive Dirac System
Connection Between Dirac and Matrix Schrödinger Inverse Scattering Transform
- F.B. Pasemann, ICTP, Trieste, General Vector Field Representation: A Geometric Tool for Quantization
- J. Dimock, SUNY at Buffalo, Scalar Quantum Field in External Gauge Field
- B. Simon, Princeton University, The Definition of Molecular Resonance Curves by the Method of Exterior Complex Scaling
- M.K.F. Wong, H.Y. Yek, Fairfield University, Lowering and Raising Operators of $IU(n)$ and $IO(n)$ and Their Normalization Constants.
- J. Messer, Göttingen, The Pressure of Fermions with Gravitational Interaction
- A. Trautman, Univ. of Warsaw, On Gauge Transformations and Symmetries
- S. Hein, G. Roepstorff, Aachen, Vortices in Infinite Free Bose Systems
- G. Marchesini, E. Onofri, Milano, Planar Limit for a $SU(N)$ Symmetric Quantum Mechanical System: A Variational Calculation
- S. Okubo, Univ. of Rochester, Pseudo Quarterion and Pseudo-Octonion Algebras
- R. Raczka, ICTP, Trieste, On the Existence of Quantum Field Models in Four-Dimensional Space-Time
- N. Nakanishi, Kyoto University, Indefinite-Metric Quantum Field Theory of General Relativity III Poincare Generators
- M. Sato, T. Miwa, M. Jimbo, Kyoto University, Studies on Holonomic Quantum Fields VIII
- V. Enns, Bielefeld, Two-Cluster Scattering of N Charged Particles
- M. Fannes, F. Rocca, Univ. de Nice, A Quantum Dynamical Model of Thermal Contact

- E. Prugovecki, University of Toronto, Relativistic Quantum Kinematics on Stochastic Phase Spaces for Massive Particles
A Consistent Formulation of Relativistic Dynamics for Massive Spin-Zero Particles in External Fields
- F. Langouche, D. Roekaerts, E. Tirapegni, K.U. Leuven, On the Path Integral Solution of the Master Equation
- M.H. Friedman, Y. Srivastava, Northeastern University, Boston, Einstein Equations, Supersymmetry and Flat Limits of Curved Superspace
- J.P. Draayer, T.R. Haleman, K. Kar, University of Rochester, Simple Approximations and Symmetry Measures for Model Interactions
- A.F. Ranada, L. Vazquez, Univ. Complutense, Madrid, Kinks and the Heisenberg Uncertainty Principle
- J.L. Lebowitz, Rutgers Univ., New Brunswick, Exact Results in Nonequilibrium Statistical Mechanics: Where Do We Stand?
- R.L. Warnock, Illinois Inst. of Tech., Chicago, A Non-linear Integral Equation from the Ball-Zachariassen Model of Diffractive Scattering: Solution by the Imbedding Method Near a Singularity of the Frechet Derivative.
- A. Moessiaux, A. Crepin, A. Ronveaux, Namur, Belgium, Spheroidal and Torsional Modes of a Spherical Void Situated Inside an Infinite Metal
- J. Glimm, A. Jaffe, Rockefeller Univ., Charges, Vortices and Confinement
- A. Jaffe, Harvard University, Cambridge, Mass., Introduction to Gauge Theories
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