

IAMP NEWS BULLETIN

Progress Report

1. A further notice about the reduced price subscription of "Communications in Mathematical Physics" for IAMP members. Despite the December 15 deadline mentioned earlier, the reduced subscriptions can be placed at any time. The method of application is the same as instructed before, namely either
(1) make a check in the amount US \$ 115.- payable to

Springer - New York

and send it together with an application form (stating that you would like to subscribe to Communications in Mathematical Physics at reduced rate for IAMP members, attesting that your subscription does not replace library subscriptions and containing date, your signature, your name (legible), IAMP membership number (if known) and address where the Comm. Math. Phys. is to be sent to the following address (do not omit "Chief Editor, CMP"):

Professor A. Jaffe, Chief Editor, CMP
Lyman Laboratory of Physics, Harvard University
Cambridge, Massachusetts 02138, USA.

or (2) make a check in the amount

DM.182.- if your mailing address is in West Germany,
DM.200.40 if your mailing address is not in West Germany,

payable to

International Association of Mathematical Physics

and send it together with the application form to

Professor K. Osterwalder
Mathematik, ETH Zentrum,
CH-8092 Zürich, Switzerland.

(This yearly subscription price is a vast reduction compared with the regular one.)

A further clarification: Vol. 78, No. 1 and No. 2 were published during 1980 and have 1980 dates on the cover. They are however, part of the originally scheduled 1981 issues and they are included in the subscription for the year 1981 to CMP. Thus the subscribers for 1981 receive four volumes in their entirety twelve to sixteen issues as determined by the publisher. The total number of pages published in these four volumes will be approximately 2,400. (One new volume is equivalent to two volumes up to last year.)

2. The first circular and the poster for the Berlin Conference are now ready. A copy of the first circular is either enclosed here or has been sent to you.

Huzihiro Araki

* News Bulletin published by the International Association of Mathematical Physics and distributed to its members.

* All items for inclusion in this Bulletin, except possibly for preprints and books, should be sent with a clear indication that it is "for IAMP News Bulletin" to

Professor H. Araki, RIMS, Kyoto University, Kyoto 606, JAPAN.

* Preprints and books to be announced in this Bulletin may be sent either to H. Araki at the above address or to one of the following addresses:

Mrs. Elisabeth Bähr, c/o Prof. L. Streit, Fakultät für
Physik, Universität Bielefeld, 4800 Bielefeld 1, BRD.

Mrs. Grace Anderson, c/o Prof. A. S. Wightman, Jadwin Hall,
Princeton University, P.O.Box 708, Princeton, N.J. 08544, USA.

Conferences (* indicates a new item, # a correction in an old item.)

Conference on Nonlinear Problems in Science, Rice Univ., Houston, TX, USA, Feb. 25 - 29, 1981.

Further information: John C. Polking, Dept. of Mathematics, Rice University, Box 1892, Houston, TX 77001, USA.

(see detailed announcement in October 15, 1980 issue.)

Symposium on Ergodic Theory, von Neumann Algebras and Related Topics, Warwick University, Feb. - July, 1981 (Research meeting).

Further information: Ms. Elaine Shiels, Mathematics Institute, University of Warwick, Coventry CV4 7AL, Great Britain.

1981 Sanibel Workshop on Large Order Perturbation, the Sheraton Palm Coast Inn near Daytona Beach, Florida, USA, March 2 - 4, 1981 (a meeting on Quantum Pharmacology on March 5 - 7 and the regular Sanibel Symposium during the week of March 9).

Further information: Acting Director, Sanibel Meetings
Williamson Hall, University of Florida
Gainesville, Florida 32611, USA.

(see detailed announcement in December 15, 1980 issue.)

* International Symposium "Selected Topics in Quantum Field Theory and Mathematical Physics", Bechyně Castle, Czechoslovakia, June 14 - 21, 1981.

Further information: see detailed announcement on page 3.

"Chaotic Behaviour of Deterministic Systems", Les Houches école d'été (Session XXXVI, Nato Advanced Study Institute), Les Houches, France, June 29 - July 31, 1981.

Further information: Ecole d'été de Physique Théorique
74310 Les Houches, France
Telephone: (50)544133 and 544069

(see detailed announcement in December 15, 1980 issue.)

Durham Symposium on Operator Algebras, Durham, England, July 27 - Aug. 6, 1981.

Further information: B.E. Johnson, J.R. Ringrose, Dept. of Pure Mathematics, Univ. of Newcastle upon Tyne, Newcastle Upon Tyne NE1 7RU, England.

"Gauge Theories in High Energy Physics", Les Houches école d'été (Session XXXVII, Nato Advanced Study Institute), Les Houches, France, Aug. 3 - Sept. 11, 1981.

Further information: Ecole d'été de Physique Théorique
74310 Les Houches, France

Telephone: (50)544133 and 544069

(see detailed announcement in December 15, 1980 issue.)

VI International Conference on Mathematical Physics, Freie Universität Berlin (West Berlin), Aug. 11 - 20, 1981.

Further information: see the item 8 of the Progress Report in Oct. 15, 1980 issue and the item 2 in Oct. 16, 1979 issue for the organizational structure and subject matters.

International Symposium: Stochastic Processes and Applications to Differential Operators of Mathematical Physics, C.I.R.M., Marseille-Luminy, France, Aug. 24 - 28, 1981.

Further information: René Carmona, Dept. Math., Université de Saint Etienne
23 rue P. Michelon, 42023 SAINT ETIENNE Cédex, FRANCE.

* Symposium on Nonlinear Evolution Equations, Solitons and Spectral Methods, International Centre for Theoretical Physics, Trieste, Italy, Aug. 24 - 29, 1981.

Further information: Prof. A. Degasperis, Istituto di Fisica, Università Rome, Piazzale Aldo Moro, 2, 00185 Roma - Italy.

* International Symposium on Selected Topics in Statistical Mechanics, Dubna, USSR, Aug. 25 - 29, 1981.

Further information: see detailed announcement on page 3.

International Summer School "Gauge Theories Fundamental Interactions and Rigorous Results", Romania, Aug. 25 - Sept. 5, 1981.

Further information: Dr. V. Georgescu
(Secretary of the School)
Department of Theoretical Physics
Central Institute of Physics
Bucharest Magurele P.O. Box MG6
Romania
(see detailed announcement in December 15, 1980 issue.)

Detailed Announcement of Conferences

International Symposium "Selected Topics in Quantum Field Theory and Mathematical Physics"

Place: Bechyně Castle, Czechoslovakia

Date: 14 - 21 June, 1981

Programme: - Gauge Theories and Unification of Interactions
- Supersymmetries and Supergravity
- Non-linear Equations; Modern Methods in Quantum Field Theory and selected topics as Quantization, Spinors and Twistors, Representation Theory of Lie Algebras and Superalgebras.

Organizers: Institute of Physics of the Czechoslovak Academy of Sciences, Faculty of Mathematics and Physics of Charles University

Information: J. Niederle, Institute of Physics,
Na Slovance 2
CS-180 40 Prague, Czechoslovakia

International Symposium on Selected Topics in Statistical Mechanics to be held at Dubna, USSR, from Tuesday, 25 August to Saturday, 29 August, 1981 organized by Joint Institute for Nuclear Research and Steklov Mathematical Institute of the Academy of Sciences of the USSR.

The tentative scope of problems to be discussed is as follows:

- rigorous results in quantum statistical mechanics;
- fundamental aspects of the kinetic theory;
- phase transitions and critical phenomena;
- systems with the interaction of substance and boson field and the polaron theory;
- modern development of the Green's functions method in statistical mechanics and other fundamental problems of statistical physics.

A number of about 90 scientists from IJNR, JINR-Member and other countries are supposed to attend. Participation is by personal invitation only.

The working languages are Russian and English.

All the mail concerning the Symposium should be addressed to Mrs. I. S. Baldina:

Scientific Conference Secretariat
International Department
Joint Institute for Nuclear Research
141980 Dubna, USSR
Telex: MSK Dubna 412621.

We have included in the above list of conferences some information which is of tentative nature. The purpose of this list is two-fold: First to inform IAMP members about future conferences for their choice and preparation. Second to inform the organizers of conferences about other conferences for a possible avoidance of conflict. Therefore we would appreciate very much being informed about any conference which some mathematical physicists might attend, even though the information might be tentative or incomplete. If the organizer agrees, we will also include conferences at a planning state.

Books

- F. Cannata (Istituto di Fisica, Univ. di Bologna, INFN Sezione di Bologna, Italy) and H. Uberall (The Catholic University of America, Dept. of Physics, Washington D.C. 20064 USA) Giant Resonance Phenomena in Intermediate-Energy Nuclear Reactions, published by Springer-Verlag, New York (1980).
- E.B. Davies (St. John's College, Oxford, England) One-Parameter Semigroups.
- W. Thirring (Inst. Theor. Phys., Boltzmanngasse 5, A-1090 Wien, Austria) Lehrbuch der Mathematischen Physik, Band IV, Quantenmechanik grosser Systeme, Springer-Verlag Wien-New York, 1980. Members of IAMP get the special price of DM 30.

Preprints

- L. Abellanas (Dept. of Mathematical Methods in Physics, Universidad Complutense, Madrid-3 Spain) and A. Galindo (Dept. of Theoretical Physics, Universidad Complutense, Madrid-3 Spain) Evolution Equations with High Order Conservation Laws.
- L. Abellanas (Dept. of Mathematical Methods in Physics, Universidad Complutense, Madrid-3, Spain) and A. Galindo (Dept. of Theoretical Physics, Universidad Complutense, Madrid-3, Spain) Quasi-Lagrangian Systems.
- P.B. Abraham (Naval Underwater Systems Center, New London, Conn. 06385 USA) B. De Facio (Ames Laboratory, US DOE, Iowa State University, Ames, Iowa 50011 USA) and H.E. Moses (Center for Atmospheric Research, Univ. of Lowell, Lowell, Mass. 01854 USA) Two Distinct Local Potentials with No Bound States Can Have the Same Scattering Operator. A Non-Uniqueness in Inverse Spectral Transformations.
- S. Albeverio, Ph. Blanchard, R. Hoegh-Krohn (Fak. für Mathematik und Physik, Univ. Bielefeld; Fak. für Mathematik, Ruhr-Univ. Bochum; Matematisk Inst., Univ. i Oslo; CNRS-CPT, Univ. d'Aix Marseille II; UER de Luminy, Marseille) The trace Formula for the Schrödinger Operators.

- J.-P. Antoine and M. Vause (Institut de Physique Theorique, Universite Catholique de Louvain, B-1348 Louvain-la-Neuve) Partial Inner Product Spaces of Entire Functions.
- A. Arai (Dept. of Math., Tokyo Inst. of Technology, Oh-okayama, Meguro-ku, Tokyo 152 Japan) On a Model of a Harmonic Oscillator Coupled to a Quantized, Massless, Scalar Field I.
- Ph. Blanchard, M. Sirugue (Fakultät für Physik, Universität Bielefeld, D-4800 Bielefeld, BRD) Treatment of Some Singular Potentials by Change of Variables in Wiener Integrals.
- J. Bricmont (Dept. of Math., Princeton Univ., Princeton, N.J. 08544, USA), J.L. Lebowitz (Dept. of Math. and Phys., Rutgers University, New Brunswick, N.J. 08903) and C.E. Pfister (Dept. de Math. Ecole Polytechnique Federale, CH 1007 Lausanne, Switzerland) On the Local Structure of the Phase Separation Line in the Two Dimensional Ising System.
- Ph. Combe (Centre de Physique Theorique, CNRS Marseille, F-13288 Marseille Cedex 2), R. Høegh-Krohn (Matematiske Institute, Universiteit i Oslo, and CNRS Marseille), R. Rodriguez (CNRS Marseille), M. Sirugue (CNRS Marseille), and M. Sirugue-Collin (CNRS Marseille and Universite de Provence) Feynman Path Integral and Poisson Processes with Piecewise Classical Paths.
- Ph. Combe (Faculte des Sciences de Luminy, and Centre de Physique Theorique, CNRS Marseille, F-13288 Marseille Cedex 2), R. Høegh-Krohn (Matematiske Institute, Universiteit i Oslo, and CNRS Marseille), R. Rodriguez (CNRS Marseille), M. Sirugue (CNRS Marseille) and M. Sirugue-Collin (Universite de Provence, and CNRS Marseille) Generalized Poisson Processes on Quantum Mechanics and Field Theory.
- I. Davies and A. Truman (Math. Dept., Heriot-Watt University, Riccarton, Edinburgh EH14 4AS, Scotland) Laplace Asymptotic Expansions of Conditional Wiener Integrals and Generalized Mehler Kernel Formulas.
- G.F. DeAngelis (Istituto di Fisica della Facolta di Scienze Universita di Salerno, Italy), D. deFalco (Physics Dept., Princeton University, Princeton, N.J. 08544 USA), and F. Guerra (Istituto Matematico, Universita di Roma, Italy) Probabilistic Ideas in the Theory of Fermi Fields: Stochastic Quantization of the Fermi Oscillator.
- C. de Calan and V. Rivasseau (Centre de Physique Theorique, Ecole Polytechnique, 91128 Palaiseau Cedex-France) Local Existence of the Borel Transform in Eclidean Φ_4^4 .
- K.D. Elworthy (Math. Inst., Univ. of Warwick, Coventry, England) and A. Truman (Math. Dept., Heriot-Watt Univ., Riccarton, Edinburgh EH14 4AS, Scotland) Classical Mechanics, the Diffusion (Heat) Equation and the Schrödinger Equation on a Riemannian Manifold.
- K.D. Elworthy (Math. Inst., Univ. of Warwick, Coventry, England) and A. Truman (Math. Dept., Heriot-Watt Univ., Riccarton, Edinburgh EH14 4AS, Scotland) The Classical Limit of Quantum Mechanics.

- P. Esfandiari and P.H.E. Meijer (Physics Dept., The Catholic Univ. of America, Washington D.C. 20064 USA) and R.A. Farrell and S. Favin (Milton S. Eisenhower Research Center, Applied Physics Lab., The Johns Hopkins Univ. Laurel, Md. 20810 USA) New Generating Functions and Results for the Density Polynomials of the Lattices Gas.
- M. Fannes and J. Quaegebeur (Inst. voor Theoretische Fysica, Universiteit Leuven, B-3030 Leuven, Belgium) Product Mappings between Car-Algebra's.
- A. Galindo (Dept. of Theoretical Physics, Universidad Complutense, Madrid) Constans of Motion for Linear Evolution Systems.
- A. Gallone and A. Sparzani (Istituto di Scienze Fisiche dell'Universita, via Celoria 16, I-20133 Milano, Italy and Istituto Nazionale di Fisica Nucleare, Sezione di Milano) Structure Results for the Segal Quantization of Fermi Systems.
- M.L. Glasser (Clarkson College of Technology, Potsdam, N.Y. 13676 USA) Dielectric Function for an Electron Gas in Two or Three Dimensions in a Uniform Magnetic Field.
- M.L. Glasser (Clarkson College of Technology, Potsdam, N.Y. 13676 USA) and J. Boersma (Dept. of Math., Eindhoven Univ. of Technology, Eindhoven, The Netherlands) Exchange Energy of an Electron Gas of Arbitrary Dimensionality.
- M.L. Glasser (Clarkson College of Technology, Potsdam, N.Y. 13676 USA) Laplace Transforms and Asymptotic Expansions of Orthogonal Polynomials (To appear, J. Math. Phys.).
- M.L. Glasser (Clarkson College of Technology, Potsdam, N.Y. 13676 USA) Specific Heat of Electron Gas of Arbitrary Dimensionality.
- G.A. Goldin (Dept. of Math. Sciences, Northern Illinois Univ., DeKalb III 60115 USA) R. Menikoff and D.H. Sharp (Theoretical Division, Los Alamos Scientific Lab., Univ. of California, Los Alamos, NM 87545 USA) Representations of a Local Current Algebra in Non-Simply Connected Space and the Aharonov-Bohm Effect.
- O.W. Greenberg (Dept. of Physics and Astronomy, Univ. of Maryland, College Park, Maryland 20742 USA) and J. Hietarinta (Research Inst. for Theoretical Physics, Univ. of Helsinki, Helsinki, Finland) Quark Confinement and Hadron Separation.
- Z. Haba (Inst. of Theoretical Physics, Univ. of Wroclaw, Cybulskiego 36, 50-205 Wroclaw, Poland) Feynman-Kac Formula for Green Functions and Determinants in Euclidean Gauge Theories.
- P. Houston and L. O'Raiheartaigh (Dublin Inst. for Advanced Studies, IR-Dublin 4: On Monopole Systems with Weak Axial Symmetry.
- J.Z. Imbrie (Dept. of Physics, Harvard Univ., Cambridge Mass. 02138 USA) Cluster Expansions and Mass Spectra for $P(\phi)_2$ Models Possessing Many Phases (Ph.D. Thesis).
- T. Jonsson (Raunvisindastofnun Háskólans, Science Inst., Univ. of Iceland, IS-107 Reykjavik) Some Degenerate Two Point Boundary Value Problems.
- T. Jonsson (Raunvisindastofnun Háskólans, Science Inst., Univ. of Iceland, IS_107 Reykjavik) Merons at Finite Temperature.

- M.W. Kalinowski and M. Grundland (Inst. of Theoretical Physics, Warsaw Univ., PL-00-681 Warsaw) An Exact Solution of the Korteweg-de Vries Equation with Dissipation.
- M.W. Kalinowski (Inst. of Theoretical Physics, Warsaw Univ., PL-00681 Warsaw) Nonlinear Waves Interaction and a Program of Quantization of Nonlinear Theories.
- N.W. Kalinowski and M. Seweryński (Inst. of Theoretical Physics, Warsaw Univ. PL-00-681 Warsaw) On Hermits-Bell Polynomials.
- N.W. Kalinowski (Inst. of Theoretical Physics, Warsaw Univ., PL-00-681 Warsaw), M. Seweryński and L. Szymanowski (Inst. of Nuclear Research, PL-00-681 Warsaw) On Some Generalizations of Gaussian Integral and the Dimensional Regularization.
- N.W. Kalinowski and A. Grundland (Inst. of Theoretical Physics, PL-00-681 Warsaw) Simple Waves for Equation of Potential Non-Stationary Flow of Compressible Gas.
- J. Kinsella (School of Theoretical Physics, Dublin Inst. for Advanced Studies, IR-Dublin 4) Sum Rules for Partial Waves in Production Processes.
- E.H. Lieb (Physics Dept., Princeton Univ., Princeton, NJ 08544 USA) A Variational Principle for Many-Fermion Systems.
- E.H. Lieb (Physics Dept., Princeton Univ., Princeton, NJ 08544 USA) Statistical Theories of Large Atoms and Molecules.
- R. Longo (Istituto Matematico "G. Castelnuovo", Università di Roma, I-00185 Roma) Algebraic and Modular Structure of von Neumann Algebras of Physics.
- J.D. Mc Crea (Dept. of Mathematical Physics, University College, IR-Dublin 4 and School of Theoretical Physics, Dublin Inst. for Advanced Studies, IR-Dublin 4) The Petrov Type of a Static Vacuum Space-Time Near a Normal-Dominated Singularity.
- J. Mickelsson (Dept. of Math., Univ. of Jyväskylä, SF-40100 Jyväskylä and Research Inst. for Theoretical Physics, Univ. of Helsinki, SF-00170 Helsinki) On the Origin of Electroweak Interactions.
- A. Moussiaux and A. Ronveaux (Dépt. de Physique, Facultés Universitaires N.D. de la Paix Namur, B-5000 Namur) Algebraic Programming of the General Relativity Equations (Bianchi models).
- H. Narnhofer and W. Thirring (Inst. für Theoretische Physik, Universität Wien, A-1090 Wien) The Canonical Scattering Transformation in Classical Mechanics.
- C. Piron (Dept. de Physique Théorique, Univ. de Genève, CH-1211 Genève 4) New Quantum Mechanics.
- L. Polley (Inst. für Kernphysik, TH Darmstadt, D-6100 Darmstadt), G. Reents (Physikalisches Inst. der Universität, D-8700 Würzburg), and R.F. Streater (Bedford College, Regent's Park, GB-London NW1 4NS) Some Covariant Representations of Massless Boson Fields.
- E. Prugovečki (Dept. of Math., Univ. of Toronto, Toronto, Canada M5S 1A1) Quantum Spacetime Operationally Based on Propagators for Extended Test Particles.

- E. Prugovečki (Dept. of Math., Univ. of Toronto, Toronto, Canada M5S 1A1)
Stochastic Quantization of Geometrodynamical Curved Space-Time (To appear,
Nuovo Cimento B(1981)).
- C. Radin (Dept. of Math., The Univ. of Texas at Austin, Austin, Texas 78712 USA)
The Ground State for Soft Disks.
- A.K. Raina and G. Wanders (Inst. de Physique Théorique, Univ. de Lausanne,
CH-1015 Lausanne) The Gauge Transformations of the Schwinger Model.
- F. Rohrllich (Dept. of Physics, Syracuse Univ., Syracuse, NY 13210 USA)
Many-Body Forces and the Cluster Decomposition.
- S.N.M. Ruijsenaars (Dept. of Math., Texas A & M University, College Station,
Texas 77843 USA) Scattering Theory for the Federbush, Massless
Thirring and Continuum Ising Models.
- J.C. Varilly (Escuela de Matemáticas, Universidad de Costa Rica, San José,
Costa Rica) Dilation of a Non-Quasifree Dissipative Evolution.
- A. Verbeure (Instituut voor Theoretische Fysica, Universiteit Leuven, B-3030
Leuven, Belgium) and R. Weder (Instituto de Investigación en Matemáticas
Aplicadas y Sistemas Universidad Nacional Autónoma de México,
Apartado Postal 20.726, México 20 D.F.) Thermodynamical Stability
as a Natural Constraint.
- K.-K. Wan (Dept. of Theoretical Physics, Univ. of St. Andrews, GB-St. Andrews)
and K. McFarlane (School of Theoretical Physics, Dublin Inst. for Advanced
Studies, IR-Dublin 4) The Quantization of Measurement of Momentum
Observables II.
- R. Weder (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas,
Universidad Nacional Autónoma de México, Apartado Postal 20-726,
México 20 D.F.) Exclusion of a Julia-Zee Dyon.
- M. Weller (Syracuse Univ., Syracuse N.Y. 13210, USA and Dublin Inst. for Advanced
Studies, IR-Dublin 4) Manifest Gauge and Poincaré Covariance.
- W.D. Wick (Math. Dept., Univ. of Washington, Seattle, Washington 98195 USA)
Convergence to Equilibrium of the Stochastic Heisenberg Model.
- J. Yngvason (Raunvísindastofnun Háskólans, Science Inst., Univ. of Iceland,
IS-107 Reykjavik) Translationally Invariant States and the Spectrum
Ideal in the Algebra of Test Functions for Quantum Fields.

Withdrawal of Membership

- 135 Fink J.P., Dept. Math., Univ. Pittsburgh, Pittsburgh, PA 15260, USA.
177 Griffiths Y.B., Dept. Math., Univ. of Technology, Loughborough,
Leicestershire, England.
305 Mayer Humi, Worcester Polytechnic Inst., Worcester Mass 01609, USA.
351 Pennington M.R., Dept. Phys., Univ. of Durham, Durham DH1 3WE, England.

New Members

- 635 Falk H., 893 Alpine Drive, Teaneck, New Jersey 07666, USA.
- 636 Überall H., Dept. of Physics, The Catholic Univ. of America, Washington D.C. 20064, USA.
- 637 Campanino M., Istituto Matematico "G. Castelnuovo", Università di Roma, Piazzale A. Moro, Roma, Italy.
- 638 Dümcke R., Sektion Physik der Universität München, Lehrstuhl Prof. Süssmann, Theresienstr. 37, 8000 München 2, BRD.
- 639 Majewski W.A., Uniwersytet Gdanski, Instytut Fizyki, ul. Wita Stwosza 57, 80-952 Gdansk, Poland.
- 640 Moshinsky M., Instituto de Fisica, Apdo. Postal 20364, Mexico 20 D.F.
- 641 Ando T., Division of Applied Mathematics, Research Institute of Applied Electricity, Hokkaido University, Sapporo 060, Japan.
- 642 Degasperis A., Istituto di Fisica, Università di Roma, Piazzale Aldo Moro, 3-00185 Roma, Italy.
- 643 Mostow M.A., Dept. of Math., School of Physical and Mathematical Sciences, North Carolina State University at Raleigh, Raleigh, NC 27650, USA.
- 644 Ström S., Inst. for Theoretical Physics, Chalmers Inst. of Technology, Chalmers Technological Univ., S412 96 Göteborg, Sweden.
- 645 Van Heuverzwijn P., Katholieke Universiteit Leuven, Instituut voor Theoretische Fysica, Celestijnenlaan 200 D, B-3030 Heverlee, Belgium.

Change of Address

- 7 Albeverio S., Institut für Mathematik, Ruhr-Universität Bochum, Universitätsstr. 150, Postfach 102148, 4630 Bochum-Querenburg, BRD.
- 53 Brander O., Institute for Theoretical Physics, S-412 96 Göteborg, Sweden.
- 124 Enss V., Institut für Mathematik, Ruhr-Universität Bochum, Universitätsstr. 150 D-4630 Bochum-Querenburg, Germany.
- 194 Hansen F., Math. Inst., Københavns Univ. Universitetsparken 5, 2100 København ø, Denmark.
- 227 Ion P., Mathematical Dept., Univ. of Michigan, 611 Church Street, Ann Arbor, MI 48109, USA.
- 253 Ito K.R., Dept. of Mathematics, Bedford College, Regent's Park, London NW 1 4NS, England.
- 309 Messer J., Theoretische Physik, Universität München, Theresienstr. 37, D-8000 München 2, Germany.
- 339 Onofri E., Theory Division, CERN, CH-1211 Geneve 23, Switzerland.
- 375 Raszillier H., Physikalisches Institut, Universität Bonn, Nussallee 12, D. 5300 Bonn 1, BRD.
- 460 Takesaki M., UCLA Math. Dept., Los Angeles, CA 90024 USA.

Corrections

- 18 Auchumuty J.E.G. —————> Auchmuty J.F.G.
- 29 Behucke H. —————> Behncke H.
- 30 Bellissar J. —————> Bellissard J., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France.
- 142 Friedmann A., Departement de mathematiques, Université de Sherbrooke, Sherbrooke, Quebec J1K 2R1, Canada
- 170 Gos Ekhuagere to be deleted because of duplication. (Correct membership number is 532.)
- 248 Kastler D., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France.
- 278 Chee-Seng Lim, Dept. of Math., National Univ. of Singapore, Bukit Timah Rd. Singapore 1025, Rep. of Singapore.
- 312 Miracle Sole S., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France.
- 375 Raszillier I. —————> Raszillier H.
- 385 Richard J.L., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France.
- 428 Sirugue M., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France
- 500 Wehrl A. to be deleted because of duplication. (Correct membership number is 502.)
- 530 Efthymios K. —————> Kyriakopoulos E. should be listed under K.
- 533 Ekstein H., CPT, CNRS, Luminy, Case 907, F-13288 Marseille Cedex 2, France.
- 609 Phua K.K., Dept. of Physics, National Univ. of Singapore, Bukit Timah Rd. Singapore 1025, Rep. of Singapore.

June 20, 1981

IAMP NEWS BULLETIN

Progress report

1. Announcement of a meeting of General Assembly by W. Hunziker, IAMP Secretary:

A meeting of IAMP General Assembly will be held during the VI International Conference on Mathematical Physics as follows:

Date : Friday, August 14, 1981.

Time : 17:00 (5:00 p.m.)

Place : Hörsaal 1A (Main lecture Hall)

Institute of Germanic and Romanic Studies

Habelschwerdter Allee 45

1000 Berlin 33 (West)

(This building has the nick-name "Rostlaube"=Rusted Arcades for its rusted iron cover like the Civic Center in Chicago).

Agenda : 1. Progress Report by IAMP President,
2. General discussion.

2. Information on conferences related to mathematical physics in October and thereafter for the purpose of announcement in this Bulletin would be appreciated. Note that information on conferences often reaches me too late for announcement.

Huzihiro Araki

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- * News Bulletin published by the International Association of Mathematical Physics and distributed to its members.
 - * All items for inclusion in this Bulletin, except possibly for preprints and books, should be sent with a clear indication that it is "for IAMP News Bulletin" to
Professor H. Araki, RIMS, Kyoto University, Kyoto 606 JAPAN.
 - * Preprints and books to be announced in this Bulletin may be sent either to H. Araki at the above address or to one of the following addresses :
Mrs. Elisabeth Bähr, c/o Prof. L. Streit, Fakultät für Physik, Universität Bielefeld, 4800 Bielefeld 1, BDR.
Mrs. Grace Anderson, c/o Prof. A.S. Wightman, Jadwin Hall, Princeton University, P.O.Box 708, Princeton, N.J. 08544, USA.

Conferences (* indicates a new item)

Symposium on Ergodic Theory, von Neumann Algebras and Related Topics, Warwick University, Feb. - July, 1981 (Research meeting).

Further informations : Ms. Elaine Shiels, Mathematics Institute, University of Warwick, Coventry CV4 7AL, Great Britain.

" Chaotic Behaviour of Deterministic Systems", Les Houches école d'été (Session XXXVI, Nato Advanced Study Institute), Les Houches, France, June 29 - July 31, 1981.

Further informations : Ecole d'été de Physique Théorique
74310 Les Houches, France
Telephone : (50) 544133 and 544069.

Durham Symposium on Operator Algebras, Durham, England, July 27 - Aug. 6, 1981.

Further informations : B.E. Johnson, J.R. Ringrose, Dept. of Pure Mathematics, University of Newcastle Upon Tyne, Newcastle Upon Tyne NE1 7RU, England.

"Gauge Theories in High Energy Physics", Les Houches école d'été (Session XXXVII, Nato Advanced Study Institute), Les Houches, France, Aug. 3 - Sept. 11, 1981.

Further informations : Ecole d'été de Physique Théorique
74310 Les Houches, France
Telephone : (50) 544133 and 544069
(see detailed announcement in December 15, 1980 issue).

VI International Conference on Mathematical Physics, Freie Universität Berlin (West Berlin), Aug. 11 - 20, 1981.

Further informations : Conference Secretariat of the
International Conference on Mathematical Physics
Institute for Theoretical Physics
Arnimallee 3
D-1000 Berlin 33.

International Symposium : Stochastic Processes and Applications to Differential Operators of Mathematical Physics, C.I.R.M., Marseille-Luminy, France, Aug. 24 - 28, 1981.

Further informations : René Carmona, Dept. Mathe., Université de Saint Etienne
23 rue P. Michelon, 42023 SAINT ETIENNE Cédex, France.

Symposium on Nonlinear Evolution Equations, Solitons and Spectral Methods, International Centre for Theoretical Physics, Trieste, Italy, Aug. 24 - 29, 1981.

Further informations : Prof. A. Degasperis, Istituto dei Fisica, Università
Rome, Piazzale Aldo Moro, 2, 00185 Roma - Italy.

International Symposium on Selected Topics in Statistical Mechanics, Dubna, USSR, Aug. 25 - 29, 1981.

Further informations : Scientific Conference Secretariat
International Department
Joint Institute for Nuclear Research
141980 Dubna, USSR
Telex : MSK Dubna 412621

(See detailed announcement in February 15, 1981 issue).

International Summer School "Gauge Theories Fundamental Interactions and Rigorous Results", Rumania, Aug. 25 - Sept. 5, 1981.

Further informations : Dr. V. Georgescu

(Secretary of the School)

Department of Theoretical Physics

Central Institute of Physics

Bucharest Magurele P.O.Box MG6

Rumania

(see detailed announcement in December 15, 1980 issue).

The Brasov International Summer School : Gauge Theories, Fundamental Interactions and Rigorous Results, Poiana Brasov Rumania, Aug. 25 - Sept. 7, 1981.

Further informations : Dr. V. Georgeson

Department for Theoretical Physics

Central Institute of Physics

Bucharest Magurele P.O.Box MG 6

Rumania

(see detailed announcement in April 15, 1981 issue).

* International Congress of Mathematician, Warsaw, Poland, Aug. 11 - 19, 1982.

We have included in the above list of conferences some information which is of tentative nature. The purpose of this list is two-fold : First to inform IAMP members about future conferences for their choice and preparation. Second to inform the organizers of conferences about other conferences for a possible avoidance of conflict. Therefore we would appreciate very much being informed about any conference which some mathematical physicists might attend, even though the information might be tentative or incomplete. If the organizer agrees, we will also include conferences at a planning state.

Books

G. Gerlich, Eine neue Einföhrung in die statistischen mathematischen Methoden der Quantentheorie, Vieweg, Braunschweig, 1977

C. Itzykson and J.B. Zuber, Quantum Field Theory, Mc Graw Hill, New York, 1980

K. Kondo and T.M. Karade, Einstein Centenary Symposium Proceedings, Duhita Publishers, India, in print.

7. Alheyero, Mathematisches Institut, Ruhr-Universität Bochum, D-4630 Bochum;
I. Gesztesy, Fakultät für Physik, Universität Bielefeld, D-4800 Bielefeld;
and R. Høegh-Krohn, Matematisk Institutt, Universitetet i Oslo, N-0slo 3: The Low Energy Expansion in Nonrelativistic Scattering Theory
- A. Arai, Dept. of Math., Tokyo Institute of Technology, Oh-okayama
Meguro-ku, Tokyo : On a Model of a Harmonic Oscillator
Coupled to a Quantized, Massless, Scalar Field. II
- R. Beig, Institut für Theoretische Physi, Universität Wien, A-1050 Wien: The
Multipole Expansion in General Relativity
- J. Bernasconi and W.R. Schneider, Brown Boveri Research Center, CH-5405 Baden:
Probability Distribution of the CD Hopping Conductivity in Random
One-Dimensional Systems
- A. Böhm, Center for Particle Theory, University of Texas, Austin, Texas 78712,
USA and Max-Planck-Institut für Physik und Astrophysik, D-8000 München:
Resonance Poles and Gamow Vectors in the Rigged Hilbert Space Formula-
tion of Quantum Mechanics
- M. Boiti, C. Laddomada and F. Pempinelli, Istituto di Fisica dell'Università,
Lecce and I.N.F.N., I-73100 Lecce: An Equivalent Real Form of the
Nonlinear Schrödinger Equation and the Permutability for Bäcklund
Transformations
- B. Boiti, C. Laddomada and F. Pempinelli, Istituto di Fisica dell'Università,
Lecce and I.N.F.N., I-73100 Lecce: Multiple Kink-Soliton Solutions of
the Nonlinear Schrödinger Equation
- M. Boiti, C. Laddomada and F. Pempinelli, Istituto di Fisica dell'Università,
Lecce and I.N.F.N., I-73100 Lecce: The Theorem of Permutability for
the Nonlinear Schrödinger Equation
- P.J.M. Bongaarts, Instituut Lorentz, Nieuwsteeg 18, NL-2311 SB Leiden: The
Quantized Maxwell Field and its Gauges; a Generalization of Wightman
Theory
- P.J.M. Bongaarts, Instituut Lorentz, Nieuwsteeg 18, NL-2311 SB Leiden: Maxwell's
Equation in Axiomatic Quantum Field Theory, II. Covariant and Non-
Covariant Gauges
- D.P.L. Castrigiano, Institut für Mathematik der TUM, D-8000 München 2: On Eucli-
dean Systems of Covariance for Massless Particles
- D.P.L. Castrigiano, Institut für Mathematik der TUM, D-8000 München 2: Causal
Time Evolutions of Wightman Localisations, Results
- M. Duneau and A. Katz, Centre de Physique Theorique, Ecole Poly-
technique, 91128 Palaiseau Cedex-France : Generic
Properties of Classical n Body Systems, In One Dimension,
and Crystal Theory
- A.P. Fordy, School of Theoretical Physics, Dublin Institute for Advanced Studies,
Dublin 4, Ireland: Projective Representations and Deformations of
Integrable Systems

- I.M. Gel'fand, M.J. Graev and A.M. Vershik, Lab. Math. Methods in Biology, Moscow State Univ., Mehmat, Moscow 117234: Representations of the Group of Functions Taking Values in a Compact Lie Group
- N. Gisin, Département de Physique Théorique, Université de Genève, CH-1211 Genève 4: Microscopic Derivation of a Class of Non-Linear Dissipative Schrödinger-Like Equations
- R.L. Hudson, Mathematics Department, University of Nottingham, Nottingham NG7 2RD, England; P.D.F. Ion, Mathematical Reviews, University of Michigan, Ann Arbor, Michigan 48109, USA; and K.R. Parthasarathy, Indian Statistical Institute, 7, S.J.S. Sansanwal Marg, New Delhi-110029, India: Time-Orthogonal Unitary Dilations and Non-Commutative Feynman-Kac Formulae
- A. Inoue, Dept. of Math. Tokyo Institute of Technology, Oh-Okayama, Meguro-ku, Tokyo : An Explicit Solution of a Certain Schwinger-Dyson Equation
- J. Kijowski, Department of Math. Methods in Physics, University of Warsaw, ul. Hoza 69, PL-00-681 Warszawa, and G. Rudolph, Sektion Physik, Karl-Marx-Universität Leipzig, DDR-7010 Leipzig: Hydrodynamical Description of Theories of Gauge Fields Interacting with Matter Fields
- J. Kijowski, Department of Math. Methods in Physics, University of Warsaw, ul. Hoza 69, PL-00-681 Warszawa, and G. Rudolph, Sektion Physik, Karl-Marx-Universität Leipzig, DDR-7010 Leipzig: Canonical Structure of the Theory of Gauge Fields Interacting with Matter Fields
- W. Kirsch and F. Martinelli, Mathematisches Institut, Ruhr-Universität Bochum, D-4630 Bochum: On the Ergodic Properties of the Spectrum of General Random Operators
- W. Kirsch and F. Martinelli, Institut für Mathematik, Ruhr-Universität Bochum, D-4630 Bochum: On the Spectrum of Schrödinger Operators with a Random Potential
- E. Kyriakopoulos, Physics Laboratory A, National Technical University, Athens, Greece: Minkowski Space Yang-Mills Fields from Euclidean Self-Dual Fields
- E. Kyriakopoulos, Physics Laboratory A, National Technical University, Athens, Greece: Axially Symmetric Solutions of Einstein Equations
- E. Kyriakopoulos, Physics Laboratory A, National Technical University, Athens, Greece: Solutions of the Yang-Mills Field Equations Independent of the x_4 Variable
- E. Kyriakopoulos, Physics Laboratory A, National Technical University, Athens, Greece: Minkowski Space Yang-Mills Fields from Solutions of Equations in the Three Dimensional Euclidean Space
- E. Kyriakopoulos, Physics Laboratory A, National Technical University, Athens, Greece: Real Solutions of the Yang-Mills Field Equations in Minkowski Space

- J.T. Lewis and J.V. Pulé, Dublin Institute for Advanced Studies, Dublin 4, Ireland: The Statistics of the Grand Canonical Number Density for Interacting Bosons
- U. Müller-Herold, Laboratorium für Physikalische Chemie, ETH-Zentrum, CH-8092 Zürich: Chemisches Potential, Reaktionssysteme und Algebraische Quantenchemie, Habilitationsschrift
- L. O'Raifeartaigh and S. Rouhani, Dublin Institute for Advanced Studies, Dublin 4, Ireland: Recent Developments in Finite Energy (Topological) Monopole Theory
- Y.M. Park, Dept. of Math. Yonsei Univ., Seoul, Korea : The Cluster Expansion for Classical and Quantum Lattice Systems
- A.K. Raina and G. Wanders, Institut de Physique Théorique, Université de Lausanne, CH-1015 Lausanne: The Vacuum Structure of the Schwinger Model and its External Field Problem
- M. Requardt, Institut für Theoretische Physik, Universität Göttingen, D-3400 Göttingen: Spectrum Condition, Analyticity, Reeh-Schlieder and Cluster Properties in Non Relativistic Galilei Invariant Quantum Theory
- M.A. Rodriguez and M. Lorente, Departamento de Métodos Matemáticos de la Física, Facultad de Ciencias Físicas, Universidad Complutense de Madrid, E-Madrid-3: Group Theoretical Analysis of Bargmann-Wigner Equations for Massless Particles
- G. Roepstorff, The Institute for Advanced Study, Princeton, New Jersey 08540, USA: The Peierls-Griffiths Argument for Disordered Ising Systems
- G. Roepstorff, The Institute for Advanced Study, Princeton, New Jersey 08540, USA: Solvable Models of Classical Lattice Gases
- A. Ronveaux, Département de Physique, Facultés Universitaires N.É. de la Paix, B-5000 Namur: Mathematical Properties of Surface Plasmon Modes and Van der Waals Interactions in Some Geometries
- A. Ronveaux, Département de Physique, Facultés Universitaires N.D. Paix, B-5000 Namur; and Y-Saint-Aubin, Centre de recherche de mathématiques appliquées, Université de Montréal, Montréal H3C 3J7, Canada: Harmonic Polynomials Invariant under a Finite Subgroup of $O(n)$
- S.J. Summers, Fachbereich 4, Universität Osnabrück, D-5400 Osnabrück: Normal Product States for Fermions and Twisted Duality for CCR- and CAR-Type Algebras with Application to the Yukawa₂ Quantum Field Model
- M. Aizenman (Department of Physics, Princeton University, Princeton N.J. 08544 USA) Proof of the Triviality of ϕ_d^4 Field Theory and Some Mean-Field Features of Ising Models for $d > 4$
- M. Aizenman (Department of Physics, Princeton University, Princeton N.J. 08544 USA) Internal Structure of Coulomb Systems in One-Dimension
- M. Aizenman (Department of Physics, Princeton University, Princeton, N.J. 08544 USA) and B. Simon (Mathematics Department, California Institute of Technology Pasadena, CA 91125 USA) Brownian Motion and Harnack Inequality for Schrödinger Operators, submitted to Commun. Pure and Appl. Math.

- S.T. Ali (Institut für Theoretische Physik, Technische Universität Clausthal Zellerfeld, Germany) and R. Gagnon and E. Prugovečki (Department of Mathematics, University of Toronto, Toronto, Canada M5S 1A1) Conserved Quantum Probability Currents on Stochastic Phase Space, to appear in Can. J. Phys. (1981)
- S.T. Ali (Institut für Theoretische Physik, Technische Universität Clausthal Zellerfeld, Germany) and E. Prugovečki (Department of Mathematics, University of Toronto, Canada M5S 1A1) Self-Consistent Relativistic Model for Extended Spin 1/2 Particles in External Fields, to appear in Nuovo Cimento A (1981)
- J. Avron and B. Simon (Department of Mathematics, California Institute of Technology, Pasadena CA 91125 USA) Almost Periodic Schrödinger Operators: I. Limit, submitted to Commun. Math. Phys.
- J. Bricmont (Department of Mathematics, Princeton University, Princeton, N.J. 08544 USA) J.-R. Fontaine (Department of Mathematics, Rutgers University, New Brunswick, N.J. 08903 USA) Correction to the Mean Field Critical Temperature for Kac Interactions
- J.R. Fontaine (Department of Mathematics, Rutgers University, New Brunswick, NJ 08903 USA) Low Fugacity Asymptotic Expansion for Classical Lattice Dipole Gases
- G. Gaunard and W. Madigosky (Naval Surface Weapons Center, White Oak, Silver Spring, MD 20910 USA), H. Uberall (Department of Physics, Catholic University, Washington, DC 20064 USA) and L.R. Dragonette (Naval Research Laboratory Washington, DC 20064 USA) Inverse Scattering and the Resonances of Viscoelastic Systems
- S. Graffi and E. Harrell (Department of Mathematics, The Johns Hopkins University Baltimore, MD 21218 USA) Inverse Scattering for the One-Dimensional Stark Effect and the Cylindrical KdV Equation
- E. Harrell II (Department of Mathematics, The Johns Hopkins University, Baltimore, MD 21218 USA) On Estimating Tunneling Phenomena
- E. Harrell II (Department of Mathematics, The Johns Hopkins University, Baltimore, MD 21218 USA) and M. Klaus (Department of Mathematics, University of Virginia, Charlottesville, VA 22903 USA) On the Double-Well Problem for Dirac Operators
- L.P. Horwitz and F. Rohrlich (Department of Physics, Syracuse University, Syracuse, NY 13210 USA) Constraint Relativistic Quantum Dynamics
- J.Z. Imbrie (Department of Physics, Harvard University, Cambridge MA 02138 USA) Phase Diagrams and Cluster Expansions for Low Temperature $P(\phi)_2$ Models, I. The Phase Diagram, II. The Schwinger Functions.
- D. Kastler and M. Takesaki (Department of Mathematics, University of California Los Angeles, CA 90024 USA) Group Duality and the Kubo-Martin Schwinger Condition, II
- J.A. Montgomery, J.P. Ertel, and H. Uberall (Department of Physics, Catholic University, Washington, DC 20064 USA) High-Multipolarity Magnetic Sum Rule
- S.N.M. Ruijsenaars (Max-Planck-Institut für Physik und Astrophysik, Föhringer Ring 6, 8000 Munich 40, Germany) On the Two-point Functions of Some Integrable Relativistic Quantum Field Theories

- S.N.M. Ruijsenaars (Max-Planck-Institut für Physik und Astrophysik, Phyllong Ring 6, 8000 Munich 40, Germany) On Newton-Wigner Localization and Superluminal Propagation Speeds
- A.W. Sáenz and H. Uberall (Naval Research Laboratory, Washington DC 20375 USA) and A. Nagl (Department of Physics, Catholic University of America, Washington DC 20064 USA) Calculation of Electron Channeling Radiation with a Realistic Potential
- R. Schor and M.L. O'Carroll (Departamento de Física, IEx, Universidade Federal de Minas Gerais, 30.000 Belo Horizonte MG Brazil) The Scaling Limit and Osterwalder-Schrader Axioms for the Two-Dimensional Ising Model
- B. Simon (Mathematics Department, California Institute of Technology, Pasadena CA 91125 USA) Large Orders and Summability of Eigenvalue Perturbation Theory: A Mathematical Overview, to appear in Int. J. Quant. Chem.
- H. Uberall and A.R. Farhan (Department of Physics, Catholic University of America Washington DC 20064 USA) and O. Dragun and E. Maqueda (Comision Nacional de Energia Atomica, Buenos Aires, Argentina) Nuclear Surface Waves in Alpha-Particle and Ion-Ion Collisions
- H. Uberall (Department of Physics, Catholic University of America, Washington DC 20064 USA) and G.C. Gaunard (Naval Surface Weapons Center, White Oak, Silver Spring, MD 20910 USA) The Physical Content of the Singularity Expansion Method

New Members

- | | | |
|-------|--------------|---|
| # 652 | Lange, H. | Mathematisches Institut, Universität Köln Köln, BRD |
| # 653 | Morris, T. | Rutherford Physics Bldg., Room 338 3600 University Street, Montreal, Quebec, Canada H3A 2T8 |
| # 654 | Sharp, R. | Rutherford Physics Bldg., Room 318 3600 University Street, Montreal, Quebec, Canada H3A 2T8 |
| # 655 | Mori, M. | Dept. of Mathematics, Chuo University, 1-13-27, Kasuga, Bunkyo-ku, Tokyo, Japan |
| # 656 | Potthoff, J. | Fakultät f. Physik, Universität Bielefeld, D-48, Bielefeld, BRD |
| # 657 | Khalifin, L. | Fontanka 27, Steklov Mathematical Institute Acad. of Sci. Leningrad D-11, USSR |

Change of Address

- # 516 Yabuki, H. Dept. Math., Hyogo University of Education
Yashiro-cho, Kato-gun, Hyogo, Japan
- # 577 Mardin, A. Ecole Polytechnique, Centre de Physique Théorique,
Plateau de Palaiseau, F-91128 Palaiseau Cedex
- # 32 Benguria, R. Dpto. de Física Universidad de Chile
Casilla 5487 Santiago, Chile
- # 571 de Falco, D. Istituto di Fisica, Facoltà di Scienze
Università di Salerno I-84100 Salerno, Italy
- # 402 Ruijsenaars, S.N.M. Max-Planck-Institute für Physik und Astrophysik
Fohringer Ring 6, 8000 Munich 40, Germany
- # 58 Bricmont, J. Inst. de Phys. Theor. Ch. du Cyclotron 2
B-1348 Louvain-la-Neuve, Belgium
- # 73 O'Carroll, M.L. Dept. Fis do ICEX Univ. Fed. Minas Gerais
Belo Horizonte, M.G. 30000 Brazil
- # 423 Simon, B. Mathematics Department, California Institute of Technology
Pasadena, CA 91125 USA

Correction of Address

- # 484 van Hemmen, J.L. Universität Heidelberg, Sonderforschungsbereich 123,
Im Neuenheimer Feld 294, D-6900 Heidelberg 1
- # 319 Müller-Herold, U. Eidg. Technische Hochschule Zürich,
Laboratorium für Physikalische Chemie, Universitätsstr.16
CH-8092 Zürich

September 15, 1981

IAMP NEWS BULLETIN

Progress report

1. IMPORTANT : ELIMINATION OF MEMBERSHIP DUE TO NON-PAYMENT OF DUES
WILL START AS OF DECEMBER 31 THIS YEAR

All IAMP members are by now supposed to have paid IAMP dues for 1980 and 1981, except those who joined IAMP this year and hence is supposed to have paid dues for 1981. All members are supposed to pay dues for 1982 by the end of this year, in addition. Membership will be terminated by elimination after non-payment of the membership dues for one year (Article 11 (c) of IAMP Statutes). This elimination of membership has been temporarily waived by the Executive Committee (Article 12 of IAMP Statutes) so far. However the Executive Committee decided that it will not waive elimination from December 31, 1981 on and therefore members who have NOT paid dues for 1980 and 1981 as of the end of this year will generally LOSE MEMBERSHIP.

Those members who have difficulty for paying IAMP dues for some reason should apply to IAMP President (Araki) for reduced dues Status, whereby the amount of their IAMP dues will be reduced to zero.

Other members who have not paid either all or a part of dues are advised to pay dues in one of the following methods.

(D) Swiss Francs.

Send money to the following account :

Credit Suisse, Geneva
No. 0251.238.577

The amount for one year dues is 17 Swiss Francs.

-
- * News Bulletin published by the International Association of Mathematical Physics and distributed to its members.
 - * All items for inclusion in this Bulletin, except possibly for preprints and books, should be sent with a clear indication that it is "for IAMP News Bulletin" to
Professor H. Araki, RIMS, Kyoto University, Kyoto 606 JAPAN.
 - * Preprints and books to be announced in this Bulletin may be sent either to H. Araki at the above address or to one of the following addresses :
Mrs. Rosemarie Pludra c/o Prof. L. Streit, Fakultät für
Physik, Universität Bielefeld, 4800 Bielefeld 1, BDR.
Mrs. Grace Anderson, c/o Prof. A.S. Wightman, Jadwin Hall,
Princeton University, P.O.Box 708, Princeton, N.J. 08544,
USA.

(2) U.S. Dollars.

Write a check payable to IAMP and send it to

Mrs. Grace Anderson
c/o Prof. A.S Wightman
Jadwin Hall
Post Office Box 708
Princeton University
Princeton, N.J. 08544
USA

The amount for one year dues is \$10:00 .

(The account number : 17589
Bank : Nassau Savings and Loan
194 Nassau Street, Princeton, N.J.)

(3) German Mark.

Amount of Annual Dues : DM 18.--

Method of payment : Make your payment in German marks directly
to the account

No. 9400144
Sparkasse Bielefeld
4800 Bielefeld 1, FRG

of the International Association for Mathematical Physics.

Important : Be sure that your payment includes the following information

"IAMP dues of , for 19.., 19.., 19.." .
(name) (membership no.)

(4) French Francs.

This is applicable if you are staying in France or have an account in
France.

Amount of Annual Dues : 43.00 FF

Account number : Paul Belgodere, compte cheques postaux
Paris 3819 32 Z

(This is an account of Paul Belgodere, who uses this account
also for other Societies).

Methods of payment : Use "cheque postal", "cheque bancaire" or
"mandat-lettre de versement" to send money to

Monsieur Paul Belgodere
Institut Henri Poincare
11 rue Pierre et Marie Curie
75231 Paris Cedex 05

Important : Be sure that your payment includes the following information

"IAMP dues of , for 19.., 19.., 19.." .
(name) (membership no.)

(5) Japanese Yen.

This is applicable if you are staying in Japan or if you have an
account in Japan. The account of IAMP is

Dai-ichi Kangyo Bank, Hyakumanben branch
No. 1451702. (Huzihiro Araki)

The amount for one year dues is ¥ 2,200.

(6) Polish Zloties.

The account of IAMP is

Bank Handlowy w Warszawie S.A.
ul. Chałubińskiego 8
00-950 WARSZAWA (Poland)
No. 2857,1424

The amount for one year dues is 300zł .

2. The VI International Conference on Mathematical Physics was just concluded
successfully in Berlin with 426 participants from 40 or more countries. The
next meeting is planned in beginning weeks of August , 1983 at University of
Colorado, Boulder, Colorado, U.S.A. For further information, contact the
local organiser :

Professor Walter Wyss
Department of Physics and Astrophysics
University of Colorado
Boulder, Colorado 80309, U.S.A.

3. It is now the time to start thinking about the Conference on Mathematical
Physics in 1985 (the one after next). Those who have a proposal for the 1985
conference are advised to submit a written proposal by February 28, 1982 to
the following address (of IAMP Secretary) :

Professor Walter Hunziker
Institut für Theoretische Physik
ETH-Hönggerberg
CH-8093 Zürich / Switzerland.

The Executive Committee considers the following as desirable, though they are
not necessarily absolute requirements.

- (1) The funding is similar to previous conferences.
- (2) Some inexpensive accommodations such as dormitories are available
for some participants.
- (3) A lecture hall accommodating 500 or more, another lecture hall
accommodating 200 or more (for a possibility of parallel sessions)
and a few smaller rooms or offices.

The proposal should indicate how the above conditions are (or will be)
met (in terms of some concrete plans, if possible). It also should be accompanied
by a concise description of possible merits (and demerits) of the proposal, which
can be shown to all members of the Association in case of a popular vote.

As for the time of the Conference (within the year 1985), it looks like
that more or less immediately before the American Labor Day week-end seems to
be the most convenient time for people from different countries. However a
different time of the year may be proposed preferably with some explanation
for the choice.

4. The financial report for 1980 has been approved by the Executive Committee as follows :

Financial Report 1980

(1) Central Account in Geneva (SFr.)

| | | |
|--------------------|----------------------------|-----------------|
| <u>Income</u> | Carried forward from 1979. | 240.13 |
| | Net Dues | 3,414.30 |
| | Gift* | 558.00 |
| | <u>Total</u> | <u>4,212.43</u> |
| <u>Expenditure</u> | Bank charges | 15.00 |
| | Administration costs | 31.00 |
| | Travel support* | 558.00 |
| | <u>Total</u> | <u>604.00</u> |

Balance : SF 3,608.43 to be carried forward.

* The Association received from the Department of Theoretical Physics of the University of Geneva a gift of SF 558.-, which has been immediately used to support the participation of Dr. Kalinowski to the International Conference on Nonlinear Phenomena in Physics and Biology at Banff (Canada).

(2) Princeton Account (U.S.\$)

| | | |
|--------------------|------------------------------|-----------------|
| <u>Income</u> | Carried forward from 1979 | 1,290.65 |
| | Net Dues | 2,600.00 |
| | Interest | 145.56 |
| | <u>Total</u> | <u>4,036.21</u> |
| <u>Expenditure</u> | Bank charges | 5.61 |
| | Support of Berlin Conference | 1,000.00 |
| | Printing and mailing | 407.31 |
| | <u>Total</u> | <u>1,412.92</u> |

Balance : \$ 2,623.29

(3) Bielefeld Account (DM.)

| | | |
|---------------|---------------------------|-----------------|
| <u>Income</u> | Carried forward from 1979 | 2,301.30 |
| | Net Dues | 2,869.39 |
| | <u>Total</u> | <u>5,170.69</u> |

Balance : DM. 5,170.69

(4) Kyoto Account (¥)

| | | |
|---------------|---------------------------|-----------------|
| <u>Income</u> | Carried forward from 1979 | 141,900. |
| | Net Dues | 99,833. |
| | <u>Total</u> | <u>241,733.</u> |

| | | |
|--------------------|----------------------|----------------|
| <u>Expenditure</u> | Printing and mailing | 36,017. |
| | Miscellaneous | 5,100. |
| | Transfer to Zürich* | 22,843. |
| | <u>Total</u> | <u>63,960.</u> |

Balance : ¥ 177,773.

* An account was opened in Zürich to handle the reduced rate subscription of Communications in Mathematical Physics by IAMP members and ¥ 22,843 was transferred from the Kyoto account to this account as an operating fund.

(5) Warszawa Account (Zl.)

The balance at the end of 1980 is Zl 2,100.-

5. The budget for 1981 has already been announced in October 15, 1980 issue of the News Bulletin. The Executive Committee approved an additional expenditure of a support of the Berlin Conference in the amount DM 4,000.- and petty cash in the amount \$ 80.-

6. Two meetings of the IAMP Executive Committee were held during the Berlin Conference. The following are Agenda of these meetings :

August 12, 1981.

- (1) The meeting of General Assembly on August 14, 1981.
- (2) Financial matters such as Financial Reports for 1980 and Budgets for 1981.

August 17, 1981

- (1) The meeting of General Assembly on August 14, 1981.
- (2) Financial Matters.
- (3) Matters related to members who are not paying dues.
- (4) Matters related to IUPAP Commissions on Mathematical Physics.
- (5) The VII International Conference on Mathematical Physics.
- (6) The VIII International Conference on Mathematical Physics.

7. A meeting of the General Assembly of IAMP was held on August 14, 1981 in the Conference Hall at the Berlin Conference. The minutes of this meeting drafted by R.F. Screater who is nominated by W. Hunziker (IAMP Secretary) is as follows (cf. Article 36 (d) of the IAMP Statutes) :

Minutes of the meeting of the IAMP General Assembly on August 14, 1981.

Agenda 1. Progress report by IAMP President.

The following items were reported by Araki.

- (1) Election of members of Executive Committee is being carried out with the deadline Sept. 30, 1981. The ballot is to be sent to Hunziker (IAMP Secretary) in Zürich. Twelve members will be elected. They will then elect the President.
- (2) IAMP News Bulletins are being issued 5 or 6 times per year. The President asked for news of conferences to be sent to him.
- (3) We are getting IUPAP financial support (as well as IMU support) for the Berlin conference. A proposal to create a Commission on Mathematical Physics in IUPAP has been proposed and is being discussed in IUPAP.
- (4) We are now in Category C relation with UNESCO, from which we received some financial support for the Berlin conference.
- (5) The next international conference on mathematical physics will be held at University of Colorado (U.S.A.) in August, 1983. (The present plan is to start on August 2, 1983). E. Lieb is the chairman of the conference committee and W. Wyss will head the local organizers.

- (6) Soon we will ask for proposals on the 1985 meeting.
- (7) The present membership is about 650. In addition, Reidel Publishing Co. and Springer Verlag are Associate members.
- (8) These companies offer reduced rates to IAMP members as follows.
Reidel : 40% reduction on Letters in Math. Phys. and 15% reduction on books in Mathematical Physics Studies series. Reidel is to be contacted for this reduction.
Springer : Reduced rate for subscription of Comm. Math. Phys. is DM 156 per year (to be compared with a regular price DM 1416) plus postage and handling. A. Jaffe is in charge of U.S.A. Mexico, Canada,... and K. Osterwalder is in charge of Europe, Asia,...). They are to be contacted for this reduced subscription. This offer of Springer is a trial. Springer can continue this offer only if regular subscription do not decrease. The present number of reduced rate subscription by IAMP members is 40. Springer wants more subscription. (see the item 8 in this Bulletin)
- (9) IAMP has a tax-exempt status in the U.S. now. So a company, for example, can give a tax-exempt donation to IAMP.
- (10) Statutes and By-Laws of IAMP have a clause that any member is eliminated from IAMP if he does not pay dues for more than one year. However, Executive Committee can waive this elimination and is doing so at the moment for all members. Executive Committee is considering termination of the waiving because we want to eliminate those who do not want to be in IAMP but somehow accidentally were put in the list of members, and because we want everyone to pay dues. It should be noted that if some individuals can not pay dues they can apply to President for reduced dues status (which means that the amount of dues is reduced to 0).
- (11) Financial reports. Exact detail will be reported in IAMP News Bulletin. Main items in Expenditure are printing and mailing costing at about \$ 550.- and a financial support to the Berlin Conference in the amount of \$ 1,000.-. Main income is dues in the amount \$ 6,500.-, a majority of people paying for 3 years. For 1981, we have paid an additional support to the Berlin Conference in the amount of DM 4,000.-. The account for 1980 agrees quite well with the budget except for the support to the Berlin Conference which was planned to be paid in 1981.

Discussions and Comments to President's reports.

- (a) E. Lieb gave an additional explanation about the tax-exempt status of IAMP as a non-profit organization and about the Boulder Conference in 1983.
- (b) Lebowitz advised us to avoid any conflict with the Conference on Statistical Mechanics in Edinburgh in summer 1983.
- (c) A. Jaffe gave an additional explanation about the reduced-rate subscription of Communications in Mathematical Physics.

Agenda 2. General Discussion.

- (1) In reply to a question by Lebowitz, Araki said that he had asked once if people wanted to be members of IAMP.
- (2) In reply to a question by Haag, Araki said that he had reminded people in regions served by the Kyoto distribution center to pay and how to pay dues. Piron (Treasurer) will try to sort out who needs to pay and send an invoice.

- (3) Ruskai expressed an opinion that one should be able to get a reduced dues status by simply checking a list and should not have to give a reason, for example in the case of an unemployed person. Araki replied that so far reduced dues status have been given to persons in a country where either salary is low or there is a currency exchange regulation forbidding them to pay dues outside of the country. A small number of individual cases, for example, include an American who is a retired person.
- (4) Fröhlich suggested that a pay reminder should be a separate mail from News Bulletin.
- (5) Lebowitz suggested that IAMP try to register everyone in the Berlin Conference as an IAMP member.
- (6) Roos asked whether dues are paid in advance. Araki replied that it is the case and in some cases dues are paid beyond 1982.

8. Reduced rate subscription for Comm. Math. Phys. for 1982 (and 1981).

IAMP members can subscribe to Communications in Mathematical Physics at a reduced rate of DM. 156.- (this is a vast reduction compared with the regular subscription price DM.1416.) per year (4 volumes) plus mailing and handling charges. The subscription has to go through IAMP and the relevant procedure is described below. Subscriptions for 1982 as well as 1981 are now being accepted. Please note that this personal subscription should not be used to replace library subscriptions. (Springer will discontinue this arrangement with IAMP if Library subscriptions go down.)

(a) Mainly for American continents and their neighbourhood. Send an application (items to be included : name, mailing address, IAMP membership number (to check that the person belongs to IAMP) if possible, statement that you want to subscribe to Comm. Math. Phys., for which year(s) (1981 and/or 1982) and your attestation that the subscription does not replace library subscriptions, with your signature) to the following address. Please wait your payment in this case (a) until you receive an invoice from Jaffe. (Yearly subscription rate including mailing and handling charges is \$ 115.- for 1981 and a similar amount for 1982.)

Professor A. Jaffe, Chief Editor, CMP
Lyman Laboratory of Physics, Harvard University
Cambridge, Massachusetts 02138, USA.

(b) For other areas. Send an application (items to be included same as the case (a) described above) and a check to

Professor K. Osterwalder
Mathematik, ETH-Zentrum,
CH-8092 Zürich, Switzerland.

The check is to be payable to

International Association of Mathematical Physics

and the amount of one year subscription (either for 1982 or 1981) is, if received before November 30, 1981.

DM. 183.60 if your mailing address is in West Germany,
DM. 203.60 otherwise.

If the check is to arrive after November 30, 1981, then DM 5.- is to be added to the above, namely

DM.188.60 if your mailing address is in West Germany
DM.208.60 otherwise.

The deadline date November 30, 1981 for lower (IAMP handling) charge is applicable only for the case (b).

Additional remark : This reduced rate subscription is limited to IAMP members. Any non-member interested in it should first apply for IAMP membership to Araki (IAMP President, address on the first page).

9. TAX EXEMPT STATUS in U.S.

The U.S. Organizing Committee for IAMP (E. Lieb and A. Wightman) announces that it now has United States tax exempt status, as a non-profit organization. This means that individual or corporate donations through the U.S. Organizing Committee to the IAMP are tax deductible. The Organizing Committee performs IAMP housekeeping functions for North America (collects dues, sends out bulletins, etc.).

Conferences (* indicates a new item)

- * Autumn Course on Variational methods in Analysis and Mathematical Physics :
Miramare-Trieste, Italy, 20 Oct. - 11 Dec. 1981
Further informations : International Center for Theoretical Physics
P.O.Box 586, I-34100, Trieste, Italy
- * International School of Biophysics : Erica - Trapani, Sicily, 29 Nov. - 5 Dec. 1981
Further information : Prof. G. Milazzo
Piazza G. Verdi 9
00198 Roma, Italy
- * First International Conference on Non-Potential Interactions and their
Lie-Admissible Treatment : University of Orleans, France, 5 - 7 January 1982.
Further information : CIMP Department de Physique
Universite d'Orleans
F-45046 Orleans Cedex
France
- * Europhysics Conference on Solid State Physics : Manchester, U.K. ,
22 March - 25 March 1982.
Further information : Meeting Department
The Institute of Physics
47 Belgrave Square
London SW1X 8QX
U.K.
- * International School of Cosmology and Gravitation : Eric-Trapani, Sicily,
20 May - 1 June, 1982.
Further information : Prof. Vanzo De Sabbata
Istituto di Fisica dell'Universita
Via Irnerio 46
40126 Bologna, Italy

* 7th International Conference on Operator Theory : Timisoara - Herculane, Romania,
7 June - 17 June, 1982.

Further information : The 7th Operator Theory Conference
Department of Mathematics
INCREST
Bd. Pacci 220
79622 Bucharest
Romania

* Latin American School of Physics : Universidad de Los Andes, Bogota, Colombia,
21 June - 10 July, 1982.

Further information : ELAF - 82
Facultad de Ciencias
Universidad de Los Andes
Apartado Aereo 43116
Bogota, Colombia, South America
(See detailed announcement below).

* 21st International Conference on High Energy Physics : Paris, France,
26 July - 31 July, 1982

Further information : Marie-Simone Detoeuf
20, rue Barbier des Mets,
75013 Paris France

* International Congress of Mathematicians : Warsaw, Poland, 11 Aug. - 19 Aug. 1982

Further information : International Congress of Mathematicians, ICM-82
Sniadeckich 8, P.O.Box 137
00-950 Warsaw, Poland

* Symposium on Algebraic Field Theory and Rings of Unbounded Operators :
Göttingen, 20 - 24 Sept. 1982

Further information : H.J. Borchers, Institut für Theoretische Physik,
Universität Göttingen, Bunsenstr. 9, D-3400 Göttingen,
Germany Fed. Republic.

* Scientific Conference for a sixtieth birthday celebration for A. Wightman,
(being planned), Princeton, September 23 - 24, 1982.

Further information : Mrs. Grace Anderson, Physics Department,
Princeton University, Princeton, N.J. 08544, U.S.A.

Detailed Announcement of Conference

Latin American School of Physics.

Place : Universidad de Los Andes, Bogota, Colombia, South America
Date : June 21 - July 10, 1982

The main Subject of the school will be stochastic processes. A basic course will be given on the elementary mathematical aspects and other more advanced courses on the applications of stochastic processes in physics, as well as in other fields of scientific and technological application (biology, geology, etc.).

At this date, confirmation has not yet been received from all the lecturers who have been invited to give courses, but there will be courses given by:

- T. Brody, Inst. de Fisica, U. Nacional Autonoma de Mexico
- L. de la Pena, Inst. de Fisica, U. Nacional Autonoma de Mexico
- H. Leutwyler, U. Berne
- P. Schuster, Inst. für Theoretische Chemie und Strahlenchemie, U. Wien
- T. H. Seligman, Inst. de Fisica, U. Nacional Autonoma de Mexico
- H. A. Weidenmuller, Max-Planck Institut für Kernphysik.

Other lectures and courses will be indicated in the future announcements for the school.

For application forms and additional information:

ELAP - 82
 Facultad de Ciencias
 UNIVERSIDAD DE LOS ANDES
 Apartado Aereo 43116
 Bogota, Colombia, South America

We have included in the above list of conferences some information which is of tentative nature. The purpose of this list is two-fold: First to inform IAMP members about future conferences for their choice and preparation. Second to inform the organizers of conferences about other conferences for a possible avoidance of conflict. Therefore we would appreciate very much being informed about any conference which some mathematical physicists might attend, even though the information might be tentative or incomplete. If the organizer agrees, we will also include conferences at a planning stage.

Books:

Alberti/Uhlmann DISSIPATIVE MOTION IN STATE SPACES
 BSB B.G. Teubner Verlagsgesellschaft, Leipzig, 1981

E. Prugovečki "Quantum Mechanics in Hilbert Space", 2nd edition, Academic Press, New York, 1981. (A revised, expanded and updated version of the 1971 edition)

Preprints

P.M. Alberti Karl-Marx-Universität, Sektion Physik, Karl-Marx-Platz 10
 DDR-7010 Leipzig
 FORTSETZUNGSSATZE FÜR MARKOVSCHE HALBGRUPPEN STOCHASTISCHER UND SPURERHALTENDER LINEARER ABBILDUNGEN ÜBER MATRIXALGEBREN

P.M. Alberti and A. Uhlmann Karl-Marx-Universität, Dept. of Physics and NTZ
 Karl-Marx-Universität, DDR-7010 Leipzig
 EXISTENCE AND DENSITY THEOREMS FOR STOCHASTIC MAPS ON COMMUTATIVE C*-ALGEBRAS

J.M. Amigó and H. Reeh Institut für Theoretische Physik der Universität Göttingen
 Bunsenstr. 9, D-3400 Göttingen Bundesrepublik Deutschland
 SUMMATIONAL INVARIANTS IN THE MECHANICS OF MASS POINTS

J.P. Antoine and Françoise Mathot Institut de Physique Théorique
 Université Catholique de Louvain, Chemin du Cyclotron, 2
 B-1348 Louvain-la-Neuve (Belgique)

OP-ALGEBRAS AND PARTIAL INNER PRODUCT SPACES

J.P. Antoine and Françoise Mathot Institut de Physique Théorique
 Université Catholique de Louvain, Chemin du Cyclotron, 2
 B-1348 Louvain-la-Neuve (Belgique)

GOOD OPERATORS ON PARTIAL INNER PRODUCT SPACES

Asao Arai (Dept. of Math., Tokyo Inst. of Technology, Oh-okayama,
 Meguro-ku, Tokyo 152, Japan) Rigorous Theory of Spectra and
 Radiation for a Harmonic Oscillator Atom Interacting with a
 Quantized Electromagnetic Field.

Naruyoshi Asano and Yusuke Kato (Dept. of Engineering Mathematics,
 Utsunomiya Univ., Utsunomiya 321, Japan) Non-Selfadjoint
 Zakharov-Shabat Operator with a Potential of the Finite
 Asymptotic Values. I. Direct Spectral and Scattering Problems.

J. Audretsch Fakultät für Physik der Universität Konstanz Postfach 5560
 D-7750 Konstanz Bundesrepublik Deutschland

DIRAC ELECTRON IN SPACE-TIMES WITH TORSION:
SPINOR PROPAGATION, SPIN PRECESSION, AND NONGEODESIC ORBITS

M. Blažek Institute of Physics of the Slovak Academy of Sciences
 DUBRAVSKA CESTA, 899 30 Bratislava Czechoslovakia
 TO THE ORIGIN OF THE STRUCTURES

G. Bencze (Central Research Institute for Physics, H-1525 Budapest 114
 POB 49 Hungary) and C. Chandler (Department of Physics and Astronomy,
 University of New Mexico, Albuquerque, NM 87131 USA) Time Dependent
 Scattering Theory for Identical Particles

C. Billionnet and P. Renouard Centre de Physique Théorique Ecole Polytechnique
 91128 PALAISEAU Cedex - France Equipe de Recherche du C.N.R.S.
 ANALYTIC INTERPOLATION AND BOREL SUMMABILITY OF THE
 $(\frac{\lambda}{N} | \phi_N |^4)_2$ MODELS I - FINITE VOLUME APPROXIMATION

S.K. Bose Department of Physics, University of Notre Dame, Notre Dame,
 Indiana 46556, U.S.A.
 and

R.N. Sen Department of Mathematics, Ben Gurion University of the Negev,
 84120 BeerSheva, Israel
 IMPLEMENTING THE BOGOLIUBOV TRANSFORMATIONS

C. de Calan and V. Rivasseau (Centre de Physique Théorique de l'Ecole
 Polytechnique Plateau de Palaiseau - 91128 Palaiseau, Cedex, France)
 The Perturbation Series for ϕ_4 Field Theory is Divergent.

- C. Chandler (Department of Physics and Astronomy, University of New Mexico, Albuquerque, New Mexico 87131 USA) and A.G. Gibson (Department of Mathematics and Statistics, University of New Mexico, Albuquerque, New Mexico 87131 USA) N-Body Quantum Scattering Theory in Two Hilbert Spaces, III Approximation Solvability
- S.Ciulli School of Theoretical Physics, Dublin Institute for Advanced Studies, 10 Burlington Road, Dublin 4, Ireland
and
T.D.Spearman School of Mathematics, Trinity College Dublin, Dublin 2, Ireland
ANALYTIC CONTINUATION FROM DATA POINTS WITH UNEQUAL ERRORS
- Ch.Duchon Université Pierre et Marie Curie Laboratoire de Chimie Physique 11, rue Pierre et Marie Curie F-75231 Paris, Cedex 05 France
and
M.Cl.Dumont-Lepage Facultés Universitaires N.D.Paix Département de Physique rue de Bruxelles, 61 B-5000 Namur Belgique
and
J.P.Gazeau Université Pierre et Marie Curie Laboratoire de Chimie Physique 11, rue Pierre et Marie Curie F-75231 Paris, Cedex 05 France
ON TWO STURMIAN ALTERNATIVES TO THE L.C.A.O. METHOD FOR A MANY-CENTER ONE ELECTRON SYSTEM
- C.Duchon Université Pierre et Marie Curie Laboratoire de Chimie Physique 11, rue Pierre et Marie Curie F-75231 Paris, Cedex 05 France
and
M.Cl.Dumont-Lepage Facultés Universitaires N.D.Paix Département de Physique rue de Bruxelles, 61 B-5000 Namur Belgique
and
J.P. Gazeau Université Pierre et Marie Curie Laboratoire de Chimie Physique 11, rue Pierre et Marie Curie F-75231 Paris, Cedex 05 France
METHODES STURMIENNES POUR LE POTENTIEL COULOMBIEN A PLUSIEURS CENTRES FIXES.
- A.Frigerio UNIVERSITA DI MILANO, Istituto di Scienze Fisiche "Aldo Pontremoli", Via Celoria, 16 I-20123 Milano (Italy)
and
M.Verri Istituto di Matematica, Informatica e Sistemistica, Università di Udine, Udine, Italy
LONG-TIME ASYMPTOTIC PROPERTIES OF DYNAMICAL SEMIGROUPS ON W^* -ALGEBRAS
- S. Gauthier (Observatoire de Nice, B.P. n 252, 06007 Nice Cedex) and M.-E. Brachet (Univ. Paris VI, 4 Place Jussieu, Paris) and J.-D. Fournier (C.N.R.S., Observatoire de Nice, B.P. n 252, 06007 Nice Cedex) Testing Field Theoretical Methods on a Classical Cubic Equation with Stochastic Driving.

- H.O.Georgii Mathematisches Institut der Universität München, Theresienstr. 39, D-8000 München 2:
EQUILIBRIA FOR PARTICLE MOTIONS: CONDITIONALLY BALANCED POINT RANDOM FIELDS
- G.A. Goldin (Department of Mathematical Sciences, Northern Illinois University DeKalb, Illinois 60115 USA) R. Menikoff and D.H. Sharp (Theoretical Division, Los Alamos National Laboratory, University of California, Los Alamos, NM 87545 USA) Induced Representations of Diffeomorphism Groups Described by Cylindrical Measures
- Ch.Gruher, Ph.A.Martin, Ch.Oguey - Institut de Physique Théorique ECOLE POLYTECHNIQUE FEDERALE-Lausanne, Avenue de l'Eglise Anglaise 14, CH-1006 Lausanne Switzerland
EUCLIDEAN INVARIANCE IN STATISTICAL MECHANICS OF CLASSICAL CONTINUOUS SYSTEMS
- F.Hansen and G.K.Pedersen Matematisk Institut Universitetsparken 5, 2100 KØBENHAVN Ø DANMARK
JENSEN'S INEQUALITY FOR OPERATORS AND LÖWNER'S THEOREM
- G.Hofmann Sektion Mathematik der Karl-Marx-Universität Leipzig Karl-Marx-Platz, DDR-7010 Leipzig
BESCHREIBUNG DER EXTREMALSTRAHLEN DES POSITIVITÄTSKEGELS IN TENSORALGEBREN
- P.A.Hogan Mathematical Physics Department, University College, Belfield, Dublin 4, and School of Theoretical Physics, Dublin Institute for Advanced Studies, 10 Burlington Road, Dublin 4, Ireland
AN EMBEDDING OF SOME STIEFEL BUNDLES
- L.P. Horwitz (Eidgenössische Technische Hochschule, Hönggerberg CH-8093 Zürich Switzerland) and Y. Lavie (Tel Aviv Univ., Ramat Aviv, Israel) Scattering Theory in Relativistic Quantum Mechanics.
- C.J.Isham Imperial College Blackett Lab. LONDON SW7 2 BZ England
TOPOLOGICAL θ -SECTORS IN CANONICALLY QUANTIZED GRAVITY
- K.R. Ito Dept. of Math., Bedford College Univ. of London, Regent's Park London NW1 4NS, U.K.:
CONSTRUCTION OF EUCLIDEAN (QED)₂ via Lattice Gauge Theory
- Bernard S.Kay Institut für Theoretische Physik, Universität Bern, Sidlerstraße 5, CH-3012 Bern, Switzerland:
QUANTUM FIELDS IN CURVED SPACE-TIMES AND SCATTERING THEORY
- R. Kotecky (Department of Mathematical Physics, Charles University, Povitavská 1, Praha 8, Peleč-Tyrolka, Czechoslovakia) Mean Field Approximation is Exact in the Many-Component Limit of Potts Lattice Gauge Model
- K.Kraus Physikalisches Institut der Universität Würzburg, Am Hubland D-8700 Würzburg Bundesrepublik Deutschland
ASPECTS OF THE INFRARED PROBLEM IN QUANTUM ELECTRODYNAMICS

Ph.A.Martin Institut de Physique Théorique ECOLE POLYTECHNIQUE FEDERALE-
Lausanne, Avenue de l'Eglise Anglaise 14, CH-1006 Lausanne
Switzerland
A REMARK ON THE GOLDSTONE THEOREM IN STATISTICAL MECHANICS

J.McConnell Dublin Institute for Advanced Studies, 10 Burlington Road,
Dublin 4, Ireland
STOCHASTIC DIFFERENTIAL EQUATION STUDY OF NUCLEAR MAGNETIC
RELAXATION BY SPIN-ROTATIONAL INTERACTIONS

A.Moussiaux and P.Tombal Facultés Universitaires N.O. de la Paix Namur
Faculté des Sciences, Département de Physique
rue de Bruxelles, 61 5000 NAMUR Belgique
and
J. Demaret Institut d'Astrophysique Université de Liège,
Cointe-Ougree Belgique
EXACT SOLUTION FOR VACUUM BIANCHI-TYPE III MODEL WITH A
COSMOLOGICAL CONSTANT

PL. Muthuramalingam and Kalyan B. Sinha (Indian Statistical Inst.,
7 SJS Sansanwal Marg, New Delhi-110016) Asymptotic Completeness
in Long Range Scattering - I.

H. Nakajima (Dept. of Engineering Mathematics, Utsunomiya Univ,
Utsunomiya 321, Japan) Characterization of Canonical Bose-
Fermi Systems by 'Antihermitian' Symplectic Forms

C. Radin (Mathematics Department, The University of Texas, Austin, Texas 78712)
Crystalline Symmetry and Surface Tension

L.O'Raifeartaigh and S.Rouhani Dublin Institute for Advance Studies, 10 Burlington
Road, Dublin 4, Ireland
TWISTED AXIAL SYMMETRY AND FINITELY SEPARATED MONOPOLES

G.A.Raggio Laboratorium für physikalische Chemie, ETH-Z, CH-8092 Zürich
and
A.Rieckers Institut für theoretische Physik der Universität Tübingen,
Auf der Morgenstelle 14, D-7400 Tübingen
COHERENCE AND INCOMPATIBILITY IN W^* -ALGEBRAIC QUANTUM THEORY

A.G. Ramm (Department of Mathematics, Kansas State University, Manhattan, KS
66506) Mathematical Foundations of the Singularity and Eigenmode Expansion
Methods (to appear in J. Math. Anal.Appl.)
Asymptotics of Resonant States at Infinity and Bound States (with P.A.
Mishnaevsny) *ibid.*
Spectral Properties of Some Nonselfadjoint Operators (to appear in Math.
Studies, Spectral Properties of Differential Operators, North Holland,
Amsterdam, 1981)

M.Requardt Institut für Theoretische Physik der Universität Göttingen,
Bunsenstr. 9, D-3400 Göttingen Bundesrepublik Deutschland
ABOUT THE POSSIBILITY OF CLASSICAL CRYSTALLIZATION AND POOR
CLUSTERING OF PARTICLE DISTRIBUTION FUNCTIONS

F. Röhrlich (Stanford Linear Accelerator Center, Stanford University, Stanford,
CA 94305) Evolution and Covariance in Constraint Dynamics

G.L.Sewell Department of Physics, Queen Mary College, Mile End Road,
London E1 4NS, England
QUANTUM FIELDS ON MANIFOLDS: PCT AND GRAVITATIONALLY-INDUCED
THERMAL STATES

L.P.Singh Dublin Institute for Advanced Studies, 10 Burlington Road,
Dublin 4, Ireland (on leave of absence from Physics Dept.
Utkal University, Bhubaneswar - 751004, India)
and
D.H.Tchrakian St.Patrick's College, Maynooth, Co. Kildare, Ireland and
Dublin Institute for Advanced Studies, 10 Burlington Road,
Dublin 4, Ireland
ON THE YANG R-GAUGE FOR SU (3)

H. Spohn Institut des Hautes Etudes Scientifiques 35, route de Chartres
91440 - Bures-sur-Ivette (France):
Fluctuation Theory for the Boltzmann Equation

H. Spohn Institut des Hautes Etudes Scientifiques 35, route de Chartres
91440 Bures-sur-Ivette (France):
Hydrodynamical Theory for Equilibrium Time Correlation
Functions of hard Rods

D.H.Tchrakian St.Patrick's College, Maynooth, Co.Kildare, Ireland and
Dublin Institute for Advanced Studies, 10 Burlington Road,
Dublin 4, Ireland
A GEOMETRIC FORMULATION OF THE MONOPOLE PROBLEM

A.Trautmann Institute of Theoretical Physics, Warsaw University,
Ul. Hoza 69, 00-681 Warszawa:
GEOMETRICAL ASPECTS OF GAUGE CONFIGURATIONS

M.van den Berg, Institute for Theoretical Physics, State University of Groningen,
P.O.Box 800, 9700 AV Groningen, The Netherlands
A UNIFORM ESTIMATE FOR THE PARTITION FUNCTION OF THE LAPLACIAN WITH
DIRICHLET BOUNDARY CONDITIONS ON A COMPACT CONVEX SET

Ph. Droz-Vincent Collège de France Chaire de Physique Mathématique
11, Place Marcelin Berthelot, 75231-PARIS Cedex 05:
SECOND QUANTIZATION OF DIRECTLY INTERACTING PARTICLES

December 15, 1981

IAMP NEWS BULLETIN

Progress Report

1. The top 24 names in the election of members of Executive Committee together with the number of votes for each person in parenthesis are as follows:

| | | |
|-----------------------------|--------------------------|-------------------------|
| 1. E. Lieb (159) | 2. W. Hunziker (151) | 3. H.J. Borchers (123) |
| 4. D.W. Robinson (116) | 5. L. Streit (114) | 6. J. Lebowitz (107) |
| 7. N.N. Bogoljubov (103) | 8. S.T. Kuroda (100) | 9. K. Osterwalder (94) |
| 10. J. Niederle (78) | 11. J.T. Lewis (77) | 12. D. Sternheimer (77) |
| 13. K.R. Parthasarathy (70) | 14. A. Lichnerowicz (69) | 15. B. Nagel (68) |
| 16. A. Galindo (62) | 17. A. Jaffe (35) | 18. J. Fröhlich (28) |
| 19. F.J. Dyson (23) | 20. A. Trautmann (20) | 21. D. Kastler (18) |
| 22. J. Glimm (15) | 23. Ph. Blanchard (10) | 24. I.E. Segal (9) |

There are 24 votes for R.L. Dobrushin and 19 votes for Gallavotti but both have not joined the Association (and are not in the official list of members distributed to you by Hunziker). Therefore these votes are counted invalid.

The first 12 persons in the above list are elected to Executive Committee for the term 1982-1984. Officers are being elected among them, voting administered by the present IAMP Secretary (Hunziker).

2. Proposals for the 1985 Conference site are to be sent to Hunziker before the end of February, 1982. For detail, see last issue (Sept. 15) of this Bulletin.

* News Bulletin published by the International Association of Mathematical Physics and distributed to its members.

* Items to be announced in this Bulletin may be sent to one of the following addresses (please indicate clearly that it is for IAMP News Bulletin):

Mrs. Grace Anderson, c/o Prof. A.S. Wightman, Jadwin Hall,
Princeton University, P.O. Box 708, Princeton,
N.J. 08544, USA

Mrs. Rosemarie Fludra, c/o Prof. L. Streit, Fakultät für Physik,
Universität Bielefeld, 4800 Bielefeld 1, BRD

Professor D.W. Robinson, Chairman, Department of Mathematics,
Research School of Physical Sciences,
The Australian National University, P.O. Box 4,
Canberra ACT 2600, Australia

3. Members are requested to pay membership dues for 1982 (if not paid yet) by the end of 1981 (see Article 21 of the By-Laws). Those who have not paid dues for 1980 and/or 1981 should note the important notice at the beginning of last issue (Sept. 15) of this Bulletin about termination of membership due to non-payment of the membership dues (Article 11 (c) of Statutes).

4. The budget items for the fiscal year 1982 approved by the Executive Committee are as follows:

| | |
|-------------------------------|-----------|
| Expenditure | |
| printing and mailing | \$1,000.- |
| miscellaneous expenses | \$100.- |
| support of Boulder Conference | \$1,000.- |
| Income | |
| dues | \$500.- |

(There will be a certain amount carried forward from 1981.)

5. The distribution center for Asia and Oceania will be moved to the following:

Professor D.W. Robinson
Chairman, Department of Mathematics
Research School of Physical Sciences
The Australian National University
P.O. Box 4
Canberra ACT 2600, Australia

6. A new IAMP bank account in Japan for the purpose of receiving dues has been opened as follows:

Dai-ichi Kangyo Bank, Shibuya Branch
No. 162-1205885 (Shigetoshi Kuroda)

The old account in Kyoto will be closed in due time.

7. This will be the last issue of News Bulletin during my term as a President.

H. Araki

Open Position

A junior faculty position is expected to be available at Harvard University in Mathematical Physics. To apply, send a Curriculum Vitae, List of Publications, and request two references to be sent to A. Jaffe, Lyman Laboratory of Physics, Harvard University, Cambridge, Mass. 02138, USA.

Conferences (* indicates new items. # indicates change or addition.)

First International Conference on Non-Potential Interactions and their Lie-Admissible Treatment: University of Orleans, France, 5 - 7 January 1982.

Further information: CINP Department de Physique, Universite d'Oreleans, F-45046 Oreleans Cedex, France.

Europhysics Conference on Solid State Physics: Manchester, U.K., 22 March - 25 March 1982.

Further information: Meeting Department, The Institute of Physics, 47 Belgrave Square, London SW1X 8QX, U.K.

*International School of Cosmology and Gravitation: Eric-Trapani, Sicily, 20 May - 1 June, 1982.

Further information: Prof. Venzo De Sabbata, Istituto di Fisica dell'Universita, Via Irnerio 46, 40126 Bologna, Italy.

(See detailed announcement below.)

7th International Conference on Operator Theory: Timisoara-Herculane, Romania, 7 June - 17 June, 1982.

Further information: The 7th Operator Theory Conference, Department of Mathematics, INCREST, Bd. Pacci 220, 79622 Bucharest, Romania.

*Stochastic Processes in Physics (Latin American School of Physics): Universidad de Los Andes, Bogota, Colombia, 21 June-10 July, 1982.

Further information: ELAF - 82, Facultad de Ciencias, Universidad de Los Andes, Apartado Aereo 43116, Bogota, Colombia, South America.

(See detailed announcement in Sept. 15, 1981 issue of this Bulletin and below.)

*New Trends in Atomic Physics (Les Houches Summer School- Nato Advanced Study Institute, Session 38): Les Houches, France, 28 June - 29 July, 1982.

Further information: Ecole d'été de physique théorique, 74310 Les Houches, France. Telephone: (50)54 41 33 and 54 40 69.

(See detailed announcement below.)

21st International Conference on High Energy Physics: Paris, France, 26 July - 31 July, 1982.

Further information: Marie-Simone Detoeuf, 20 rue Barbier des Mets, 75013 Paris France.

*Recent Advances in Field Theory and Statistical Mechanics (Les Houches Summer School): Les Houches, France, 2 August - 10 September, 1982.

Further information: Ecole d'été de physique theorique, 74310 Les Houches, France. Telephone: (50)54 41 33 and 54 40 69.

(See detailed announcement below.)

International Congress of Mathematicians: Warsaw, Poland, 11 Aug. - 19 Aug. 1982.

Further information: International Congress of Mathematicians, ICM-82, Sniadeckich 8, P.O.Box 137, 00-950 Warsaw, Poland.

Symposium on Algebraic Field Theory and Rings of Unbounded Operators: Cöttingen, 20 - 24 Sept. 1982.

Further information: H. J. Borchers, Institut für Theoretische Physik, Universität Göttingen, Bunsenstr. 9, D-3400 Göttingen, BRD.

Scientific Conference for a sixtieth birthday celebration for A. Wightman, (being planned), Princeton, September 23 - 24, 1982.

Further information: Mrs. Grace Anderson, Physics Department, Princeton University, Princeton, N.J. 08544, U.S.A.

*Two sessions of Les Houches Summer School will be held in 1983, one on Astrophysics, the other on Quantized Gravity.

*13th International Colloquium on Group Theoretical Methods in Physics: University of Maryland, College Park, Maryland, USA, 1984.

Detailed Announcement of Conferences

International School of Cosmology and Gravitation: Einstein's programme of a unified field theory by geometrisation (P.G. Gergmann), 5-dimensional Kaluza approach (S. Ferrara), 5-dimensional projective field theory (B. Julia), Projective relativity (D. Kramer), Multidimensional unified field theories, their unitarity and renormalisability (G. Neugebauer), Supergravity in higher dimensions and superspace (P. Van Nieuwenhuizen), Fermions and higher dimensions (J. Rayski), Present state of the verification of the 4-dimensional general theory of relativity (R. D. Reasenber), Theoretical aspects concerning the limits of the 4-dimensional general theory of relativity (A. Salam), Analysis and construction of exact solutions: embedding, algebraic classification, groups of motion, generation methods (H. Stephani).
Closing date for application: February 10, 1982.

Stochastic Processes in Physics: Introduction to the kinetic theory of plasmas (C. Diaz, 10 hours), Synergetics (H. Haken, 8 hours), Quantum chromodynamics (H. Leutwyler, 5 hours), Non-linear dynamics and related algorithms (M. Pusterla, 8 hours), Fluctuations and instabilities in laser-like systems (W. C. Schieve, 4 hours), Stochastic and deterministic processes in chemical kinetics and molecular self-organization (P. Schuster, 10 hours), Stochastic physics and gravitation (Y. Srivastava), Dynamical versus stochastic processes in atomic nuclei (H. A. Weidenmüller, 8 hours). There will be other courses given by T. Brody, G. Cavalleri, L. de la Peña, C. Di Castro, H. Kunz, B. Mellein, G. Parisi, T. H. Seligman, G. Violini.

New Trends in Atomic Physics: Introduction to quantum electrodynamics (C. Cohen-Tannoudji), Atomic physics of high Z systems (H. Backe), Effects of general relativity (H. O. Scully), Introduction to gauge theories (F. Hayot), Fundamental problems in small molecules (B. Judd), Rydberg atoms (S. Haroche), Trapped particles (D. Toschek), Polarized atoms at low temperature (D. Kleppner), Effects of collisions (D. Berman). Additional seminars and courses will be given by M. A. Bouchiat, J. P. Connerade, U. Fano, S. Liberman, Ph. Nozieres. Complete files (admission forms and recommendation letters) must have reached Les Houches before March 1, 1982.

Recent Advances in Field Theory and Statistical Mechanics: Field theory and critical phenomena (S. Shenker), Applications of instanton calculus (J. Zinn-Justin), Spontaneous broken symmetry and its phenomenology (M. Peskin), Integrable models in 1+1 quantum field theory (L. D. Faddeev), Lattice gauge theories (J. Kogut), Strings in quantum chromodynamics (A. Neveu), Field theory of random systems (G. Parisi). In addition, short courses and seminars will cover some connected areas: New exact results in field theory and statistical mechanics, supergravity, finite temperature effects in field theory and their cosmological implications, disordered systems etc. Contributions to this programme are expected from J. Fröhlich, C. Itzykson, D. J. Wallace ... Complete files (admission forms and recommendation letters) must have reached Les Houches before March 1, 1982.

Books

- H. Primas: Chemistry, quantum mechanics and reductionsism. Springer-Verlag, Berlin-Heidelberg-New York.
Members of IAMP will be given 25% discount for any of the following 3 books published by World Scientific Publ. Co., Singapore:
- K. Huang: Quarks, Leptons and gauge fields. ISBN: 9971-950-03-0, Price: Hard cover US\$30.
- M. Konuma & T. Maskawa (Eds.): Grand unified theories and related topics — Proceedings of the 4th Kyoto Summer Institute June 29 - July 3, 1981. 500 pages, ISBN: 9971-950-01-4, 9971-950-27-8 pbk, Price: Hard cover US\$35., pbk US\$16.*
- N. Craigie, P. Goddard & W. Nahm (Eds.): Monopoles in quantum field theory — Proceedings of the monopole meetings Miramare, Trieste, Italy, December 11-15, 1981. 600 pages, ISBN: 9971-950-28-6, 9971-950-29-4 pbk. Price: Hard cover US\$42. US\$31.50*, Soft cover US\$18.* (* for individuals & developing countries only.)
- A. Ramm (Dept. of Math., Kansas State U., Manhattan, Kansas 66506 USA)
ITERATIVE METHODS OF CALCULATING THE STATIC FIELDS AND WAVE SCATTERING BY SMALL BODIES, Springer Verlag

Preprints (For secretarial and timing reasons, lists from 3 distribution centers are printed below without reorganization.)

- H. Araki & S. Yamagami (RIMS, Kyoto Univ., Kyoto 606, JAPAN), On Quasi-equivalence of Quasifree States of the Canonical Commutation Relations, to appear in Publ. RIMS. Kyoto Univ. Vol.18, No.2.
- H. Araki & T. Masuda (ibid), Positive Cones and L_p -Spaces for von Neumann Algebras, to appear in Publ. RIMS. Kyoto Univ. Vol.18, No.2.
- H. Araki (ibid), On a Pathology in Indefinite Metric Inner Product Space, to appear in Comm. Math. Phys.
- H. Araki (ibid) & J. P. Jurzak (Lab. de Phys. Math., Faculté des Sciences Mirande, 21004 Dijon Cedex, France), On a Certain Class of *-Algebras of unbounded operators, submitted to Publ. RIMS. Kyoto Univ.
- R. Brandenberger & C. E. Wayne (Dept. Phys., Harvard Univ., Cambridge, MA 02138, U.S.A), Decay of Correlations in Surface Models.
- E. B. Davies (Dept. Math., King's College, Strand, London WC2R 2LS), Metastability and the Ising Model, to appear in J. Stat. Phys.
- E. B. Davies (ibid), Metastable states of symmetric Markov semigroups II.
- E. B. Davies (ibid), Energy dependence of the scattering operator II.
- M. Demuth (Akademie der Wissenschaftern der DDR, Zentralinstitut für Math. und Mechanik, Mohrenstr. 39, DDR-1080 Berlin), Scattering by Potentials Singular on Unbounded Regions.
- P. Exner & G. I. Kolerov (Lab. Theoret. Phys., JINR, Dubna, USSR), Univoorm Product Formulae with Application to the Feynman-Nelson Integral for Open Systems.
- P. Exner & G. I. Kolerov (ibid.), Path-Integral Expression of Dissipative Dynamics.
- D. Han, Y. S. Kim & D. Son (Center for Theoret. Phys., Univ. of Maryland, College Park, Maryland 20742, USA), Photon Spin as a Rotation in Gauge Space, to appear in Phys. Rev. D.
- T. Jonsson (Dept. Math., Univ. of Iceland, Dunhaga 3-107 Reykjavik, Iceland), Comparison of the Length of Infinite Geodesics in Manifolds with Nonpositive Curvature.
- T. Kawai (Dept. Phys., Osaka City Univ., Osaka 558, JAPAN), A Five Dimensional Unification of the Vierbein and Electromagnetic Fields.

- R.L. Anderson (Dept. of Phys. and Astro., U. of Georgia, Athens GA 30602 USA)
J. Harnad and P. Winternitz (Cent. de Recherche de Math. Appl., U. of Montreal, Montreal, Quebec, Canada H3C 3J7)
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- G. Bencze and C. Chandler (Dept. of Phys. and Astro., U. of New Mexico, Albuquerque, N.M. 87131 USA)
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- A. Cooper, J. Feldman, and L. Rosen (as above)
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- W.D. Wick (Math. Dept., U. of Washington, Seattle, Wash. 98195 USA)
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