

INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS



W.Hunziker

Zürich, Feb. 28, 1983

List of IAMP Associate Members

1. Springer Verlag GMBH & Co.KG  
Postfach 10 52 80  
Neuenheimer Landstrasse 28 - 30  
D - 6900 Heidelberg 1, BRD

Attn.  
Prof.W.Beiglböck

2. D.Reidel Publ.Co.  
479-483 Voorstraat  
P.O.B. 17  
3300 AA Dordrecht, Holland

Attn.  
Mr.J.F.Hattink  
Sales & Promotion Manager

3. Elsevier-North Holland  
Publishing Company  
52 Vanderbilt Ave.  
New York, NY 10017, USA

Attn.  
Donald J.Arters  
Marketing Manager

4. World Scientific Publ.Co.PTE.LTD.  
Farrer Road, P.O.Box 128  
Singapore 9128

Attn.  
Prof.K.K.Phua

Republic of Singapore

INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS



IAMP NEWS BULLETIN

March 1983

Note:

Instead of reproducing what would be a rather extensive list of members' address changes we shall print an updated membership list in one of the next issues of the Bulletin.

Conferences:

The International School of Mathematical Physics will be held in Erice, Sicily, Italy, July 2-14, 1983 on the subject of Regular and Chaotic Motions in Dynamical Systems, organized by G. Velo and A.S. Wightman. The lecturers will be G. Gallavotti, O. Lanford, P. Collet, J-P. Eckmann, S. Newhouse, R. Helleman, E. Trubowitz, and L. Kadanoff. Subjects will include perturbation theory of Hamiltonian systems, uniform and measure theoretic hyperbolicity, bifurcation theory and universality, generic properties of dynamical systems, integrable dynamical systems, and renormalizing the borderline between order and chaos.

AMS Summer Research Conference, July 17 - 23, 1983

Site: Boulder, Colorado

Topic: Fluids and Plasmas: Geometry and Dynamics

Chairman: Jerrold E.Marsden, Department of Mathematics, University of California Berkeley, CA 94720 (415-642-5229)

This conference will study theoretical and computational aspects of fluid and plasma dynamics. This includes the following three principal aspects:

1. Hamiltonian and Poisson bracket structures and related topics.
  2. Dynamical systems methods, especially chaotic dynamics.
  3. Nonlinear hyperbolic PDE's, convergence and computation.
- Organizing Committee:

Andrew Majda, Mathematics, University of California, Berkeley, CA 94720.  
Philip Holmes, Theoretical and Applied Mechanics, Cornell University, Ithaca, NY 14853

Advisors:  
Alexandre Chorin and Alan Weinstein

Chairman of the AMS Summer Conference Committee:  
Ronnie O.Wells, Department of Mathematics, Rice University, Houston TX 77001.

Sponsors: National Science Foundation, University of Colorado,  
International Association of Mathematical Physics, University of  
Denver, IMU, IUPAP.

Conference Committee: H. Araki, W. Brittin, J. Fröhlich, K. Gustafson,  
J. Lebowitz, E. Lieb, W. Wyss.

Speakers include: T. Balaban, H. J. Borchers, D. Bridges, V. S. Buslaev,  
J. P. Eckmann, V. Enss, M. Fisher, G. Gallavotti, J. Ginibre, T. Hida,  
G. Parisi, R. Temam, E. Trubowitz, S. Varadhan, C. N. Yang.

Session Organizers include: J. Klauder, J. Glimm, E. Zehnder, R. Seiler,  
D. Szasz, L. Streit, W. Thirring, C. DeWitt.

Program: In addition to invited lectures, there will be special sessions on:  
mathematical methods, computational methods, classical dynamics,  
quantum dynamics, equilibrium statistical mechanics and condensed  
matter, nonequilibrium statistical mechanics and irreversible  
processes, quantum field theory and particles, classical field theory  
and relativity, supersymmetry and super gravity. Abstracts of poster  
presentations consistent with these themes are welcomed and should be  
sent to the executive secretary.

Round Table Discussion: "The contributions of Mathematical Physics to Science."  
Participants include E. Lieb, M. Fisher, R. Haag, A. Wightman, C. N.  
Yang.

Information: Professor Walter Wyss, Executive Secretary, IAMP Congress 83,  
Department of Physics, Campus Box 390, University of Colorado, Boulder,  
Colorado, 80309, U.S.A.

SECOND WORKSHOP ON NONLINEAR EVOLUTION EQUATIONS AND DYNAMICAL SYSTEMS (Chania,  
Crete, August 13 - 28, 1983). It is planned to organize, in the summer 1983,  
another International Workshop analogous to that held in the summer 1980 and de-  
scribed in Physica 2D (1981) 545-548. In view of the success of that exercise, it  
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and procedure, the organizational structure and the venue. Thus the Workshop will  
be held at the Orthodox Academy of Crete near Chania on the island of Crete and  
an all inclusive flat rate will be charged to all participants from countries with  
convertible currencies (\$ 600 per participant, \$ 450 per accompanying adult; up to  
possible adjustments due to inflation). The Workshop is tentatively scheduled for  
August 13 - 28, 1983. Anybody who thinks of participating is welcome to write  
either to

F. Calogero  
Dipartimento di Fisica  
Università di Roma I  
piazzale Aldo Moro 2  
I-00185 Roma

or to

A. Verganelakis  
Nuclear Research Center  
"Demokritos"  
Aghia Paraskevi, Attikis  
Athens Greece

An International Summer School will be organized in Romania:  
Title: Theoretical aspects of critical phenomena  
period: August 25 - September 6, 1983 POIANA BRASOV, Romania  
Organizers: Romanian Academy of Sciences, Central Institute of Physics  
Director: Valentin Ceausescu  
Address of Organizing Committee:  
Dr. Valentin Ceausescu  
Central Institute of Physics  
P.O. Box - mg 6  
Bucharest  
Romania

PREPRINTS FOR IAMP BULLETIN (Received in Princeton) March, 1983

- M. Aizenman (Mathematics Dept. Rutgers University, New Brunswick, NJ 08903 USA)  
and R. Graham (Def. Res. Est., Dartmouth, Nova Scotia B2Y 3Z7 Canada)  
ON THE RENORMALIZED COUPLING CONSTANT AND THE SUSCEPTIBILITY IN  
FIELD THEORY AND THE ISING MODEL IN FOUR DIMENSIONS
- R. Arens (Mathematics Department, Univ. of California, Los Angeles CA 90024 USA)  
THE CONSERVED CURRENTS FOR THE MAXWELLIAN FIELD
- R. Arens (address as above)  
THE DYNAMIC DIFFERENTIAL FORMS OF THE KLEIN-GORDON FIELD AND THE CONFORMAL  
GROUP (USA)
- E.M. Harrell II (Mathematics Department, Johns Hopkins Univ., Baltimore MD 21218)  
HAMILTONIAN OPERATORS WITH MAXIMAL EIGENVALUES
- E.H.E. Meijer, G. Cowart and S.M. Neuder (Dept. of Physics, Catholic University  
Washington DC 20064 USA)  
GENERAL BOUNDARY CONDITIONS FOR THE WAVE EQUATION AROUND NON-HOMOGENEOUS  
SCATTERERS
- R.G. Newton (Physics Department, Indiana University, Bloomington, IN 47405 USA)  
INVERSE SCATTERING BY A LOCAL IMPURITY IN A PERIODIC POTENTIAL IN ONE  
DIMENSION
- G.A. Goldin, R. Menikoff and D.H. Sharp (Theoretical Division, Los Alamos  
National Lab., Los Alamos, NM 87545 USA)  
INDUCED REPRESENTATIONS OF THE GROUP OF Diffeomorphisms of  $R^3$
- H. Überall (Department of Physics, Catholic University, Washington DC 20064 USA)  
(with P.J. Moser, J.D. Murphy, G.C. Gunaurd, D. Brill, P.O. Delsanto,  
J.D. Alemar and E. Rosario)  
ELECTROMAGNETIC AND ACOUSTIC RESONANCE SCATTERING THEORY  
(with P.J. Moser, A. Nagl, J.V. Subrahmanyam, P.P. Delsanto, J.D. Alemar  
E. Rosario, G.C. Gunaurd, E. Tanglis, D. Brill)  
RESONANCE SCATTERING METHODS FOR NDT, ACOUSTICS, AND RADAR  
(with A. Nagl, P.O. Delsanto, J.D. Alemar and E. Rosario)  
REFRACTION EFFECTS IN THE GENERATION OF HELICAL SURFACE WAVES ON A  
CYLINDRICAL OBSTACLE  
(with P.J. Moser)  
COMPLEX EIGENFREQUENCIES OF AXISYMMETRIC PERFECTLY CONDUCTING BODIES:  
RADAR SPECTROSCOPY  
(with D. Brill and G.C. Gunaurd)  
SONAR TARGET-IDENTIFICATION BY MEANS OF AN ACOUSTIC SPECTROSCOPY SCHEME  
(with K.B. Yoo)  
SPURIOUS RESONANCES IN BULK ACOUSTIC WAVE RESONATORS

PREPRINTS (received in Bielefeld)

- A. Alicki, Sektion Physik, Theor. Physik, Univ. München, Theresienstr. 37, D-8000 München 2  
and J. Messer, Inst. of Theor. Phys. and Astrophys., Gdansk Univ., Gdansk, Poland  
NONLINEAR QUANTUM DYNAMICAL SEMIGROUPS FOR MANY-BODY OPEN SYSTEMS
- G. F. De Angelis, Istituto di Fisica, Univ. di Salerno, I-84100 Salerno  
G. Jona-Lasinio, Istituto di Fisica, Univ. di Roma, I-00185 Roma  
M. Sirugue, Centre de Phys. Théor., CNRS, Marseille, France  
PROBABILISTIC SOLUTION OF PAULI TYPE EQUATIONS(\*)
- D. Applebaum and R. L. Hudson, The Univ. of Nottingham, Univ. Park, Nottingham NG7 2RD  
FERMION DIFFUSIONS
- J. Audretsch, Fak. f. Phys., Univ. Konstanz, P.B. 5560, D-7750 Konstanz  
THE RIEMANNIAN STRUCTURE OF SPACE-TIME AS A CONSEQUENCE OF QUANTUM MECHANICS
- C. Barnett, R. F. Streater, I. F. Wilde, Dept. of Mathem., Bedford College, Regent's Park,  
London NW1 4NS  
QUANTUM STOCHASTIC INTEGRALS UNDER STANDING HYPOTHESES  
THE ITO-CLIFFORD INTEGRAL IV - A RADON-NIKODYM THEOREM AND BRACKET PROCESSES
- B. Baumgartner, H. Narnhofer and W. Thirring, Inst. f. Theor. Phys., Univ. Wien  
THOMAS FERMI LIMIT OF BOSE-JELLIUM
- M. Bednář\*, J. Blank\*\*, P. Exner, M. Havlíček\*\*, Joint Institute f. Nucl. Res., Dubna  
\*Inst. of Phys., Czechoslovak Acad. of Sci., Prague, Na Slovance 2, 180 40 Praha 8  
\*\*Nuclear Centre of the Charles Univ., Prague, V Holešovičkách 2, 180 00 Praha 8  
REPRESENTATIONS OF  $osp(1,4)$  IN TERMS OF THREE BOSON PAIRS AND MATRICES  
OF ARBITRARY EVEN ORDER
- M. Boiti, C. Laddomada, F. Pempinelli and G. Z. Tu\*  
Dep. di Fis. dell'Univ. Lecce, Italy and Ist. Nazionale di Fis. Nucl.  
Sezione di Bari, Italy  
\*On leave of absence from Computing Center of Chinese Acad. of Sci., Beijing  
ON A NEW HIERARCHY OF HAMILTONIAN SOLITON EQUATIONS
- H.-J. Borchers, Inst. f. Theor. Phys. Univ. Göttingen, Bunsenstr. 9, D-3400 Göttingen  
LOCALITY AND THE SPECTRUM CONDITION FOR THE TRANSLATIONS
- O. Bratelli, Inst. of Mathem. Univ. of Trondheim, 7034 Trondheim-NTH, Norway  
G. A. Elliott, Dep. of Mathem., Univ. of Ottawa, Ottawa, Ontario,  
Canada K1N 9B4 (on leave from Mathem. Inst. Univ. Copenhagen  
Akitaka Kishimoto, Dep. of Mathem. Yokohama City Univ., Yokohama, 236 Japan  
THE TEMPERATURE STATE SPACE OF A  $C^*$ -dynamical system, II(1)
- J. Bricmont, Inst. de Phys. Théor. Univ. de Louvain, B-1348 Louvain-La-Neuve  
J. L. Lebowitz, Dep. of Mathem. and Phys., Rutgers Univ., New Brunswick, NJ 08903  
A. Messenger, Center de Phys. Théor. C.N.R.S., Luminy F-13288  
FIRST ORDER PHASE TRANSITIONS IN POTTS AND ISING SYSTEM
- E. Buffet, Dep. of Mathem. Phys., Univ. College, Belfield, Dublin 4 Ireland  
Ph. de Smedt and J. V. Pulé\*\*, Inst. voor Theor. Fys., Univ. Leuven, B-3030 Leuven  
\*\*On leave of abs. from Univ. College Dublin, Ireland  
THE CONDENSATE EQUATION FOR SOME BOSE SYSTEMS
- S. Doplicher and R. Longo, Istituto Matematico "G. Castelnuovo", Univ. di Roma  
I-00185 Roma  
STANDARD AND SPLIT INCLUSIONS OF VON NEUMANN ALGEBRAS(\*)
- Ph. Droz-Vincent, Chaire de Phys. Mathém. Collège de France, 11 Place Marcelin  
Berthelot, F-75231 Paris, Cedex 05  
TWO-BODY RELATIVISTIC SCATTERING OF DIRECTLY INTERACTING PARTICLES

- H. J. Effinger, Inst. f. Mathem., Univ. Salzburg, Salzburg, Austria  
H. Grosse, Inst. f. Theor. Physik, Univ. Wien, Vienna, Austria  
ON BOUND STATE SOLUTIONS FOR CERTAIN NONLINEAR SCHRÖDINGER EQUATIONS
- V. Enss, Inst. f. Mathematik, Ruhr-Universität, D-4630 Bochum 1  
ASYMPTOTIC OBSERVABLES ON SCATTERING STATES
- V. Enss, Inst. f. Mathematik Ruhr-Universität, D-4630 Bochum 1 and  
Krešimir Veselić, Lehrgebiet Mathem. Phys., Fernuniv. D-5800 Hagen  
BOUND STATES AND PROPAGATING STATES FOR TIME-DEPENDENT HAMILTONIANS
- N. K. Falck and A. C. Hirshfeld, Inst. f. Phys., Univ. Dortmund, D-4600 Dortmund 50  
EXTERIOR CALCULUS OF LIE SUPERALGEBRA VALUED DIFFERENTIAL FORMS ON  
SUPERSPACE
- N. K. Falck, A. C. Hirshfeld and J. Kubo, Inst. f. Phys., Univ. Dortmund, D-46 Dortmund 50  
EXTENDED BRV SYMMETRY IN SUPERSYMMETRIC YANG-MILLS THEORY
- M. Fannes, P. Vanheuverzwijn and A. Verbeure, Inst. voor Theor. Fys., Univ. Leuven  
B-3030 Leuven  
QUANTUM ENERGY-ENTROPY INEQUALITIES, A NEW METHOD FOR PROVING THE ABSENCE  
OF SYMMETRY BREAKING
- F. Gesztesy, Inst. f. Theor. Phys., Univ. Graz, A-8010 Graz  
H. Grosse, Inst. f. Theor. Phys., Univ. Wien, A-1090 Wien  
B. Thaller, Inst. f. Theor. Phys., Univ. Graz, A-8010 Graz  
A RIGOROUS APPROACH TO RELATIVISTIC CORRECTIONS OF BOUND STATE ENERGIES
- H. P. W. Gottlieb, School of Science, Griffith Univ., Nathan, Brisbane, Queensland 4 III  
Australia  
HEARING THE SHAPE OF AN ANNULAR DRUM
- G. C. Hegerfeldt and Reinhard Reibold, Inst. f. Theor. Phys., Univ. Göttingen, D-34 Göttingen  
STOCHASTIC ASPECTS IN THE THEORY OF SPECTRAL-LINE BROADENING. I  
STOCHASTIC ASPECTS IN THE THEORY OF SPECTRAL-LINE BROADENING II.  
CLUSTER EXPANSIONS
- K. -E. Hellwig, W. Stulpe, Inst. f. Theor. Phys., Techn. Univ. Berlin  
A FORMULATION OF QUANTUM STOCHASTIC PROCESSES AND SOME OF ITS PROPERTIES
- Z. J. Hermaszewski, R. F. Streater, Dep. of Mathem. Bedford College, Regent's Park  
London NW1 4NS  
SOME LOCAL COVARIANT REPRESENTATIONS OF THE CANONICAL ANTICOMMUTATION RELATIONS
- P. A. Hogan, Mathem. Phys. Dept., University College, Belfield, Dublin 4, Ireland  
SOME SOLUTIONS OF THE YANG-MILLS EQUATIONS GENERALISING THE WU-YANG MONOPOLE
- N. M. Hugenholtz, Inst. for Theor. Phys., Univ. of Groningen, Groningen, Netherlands  
DERIVATION OF THE BOLTZMANN-EQUATION FOR A FERMI-GAS
- W. Hunziker and C. A. Pillet, Inst. f. Theor. Phys., ETH-Hönggerberg, CH-8093 Zürich  
FINITE-DIMENSIONAL ASYMPTOTIC PERTURBATION THEORY
- Th. Jonsson, Division of Mathem., The Sci. Inst. Univ. of Iceland, Dunhage 3,  
Reykjavik, Iceland  
CONVERGENCE OF A CLUSTER EXPANSION FOR RANDOMLY DILUTE ISING MODELS
- B. S. Kay, Inst. f. Theor. Phys., Univ. Bern, Sidlerstr. 5, CH-3012 Bern  
THE FREE FIELD ON THE WEDGE AND UNIQUENESS OF KMS ONE-PARTICLE STRUCTURES
- H. Kunz, Inst. de Phys. Théor. EPFL, CH-1006 Lausanne  
B. Souillard, Centre de Phys. Théor. Ecole Polytechnique, F-91128 Palaiseau  
THE LOCALIZATION TRANSITION ON THE BETHE LATTICE

M.Lorente and M.A.Rodriguez, Departamento de Métodos Matemáticos de la Física,  
Univ.Complutense, Madrid-3 (Spain)  
A LAGRANGIAN OF BARGMANN-WIGNER EQUATIONS FOR MASSIVE PARTICLES OF SPIN 2

G.Lupieri, Ist.di Sci.Fisiche "A.Pontremoli",Sezione di Fis.Teor.,via Celoria 16,  
I-20133 Milano,  
GENERALIZED STOCHASTIC PROCESSES AND CONTINUAL OBSERVATIONS IN QUANTUM  
MECHANICS

H.Maassen, Dublin Institute for Advanced Studies, Dublin 4,Ireland  
RETURN TO THERMAL EQUILIBRIUM BY THE SOLUTION OF A QUANTUM LANGEVIN EQUATION

D.Masson, Dep.of Mathem., Univ. of Toronto,Toronto,Canada,M5S 1A1  
THE ROTATING HARMONIC OSCILLATOR EIGENVALUE PROBLEM I; CONTINUED FRACTIONS  
AND ANALYTIC CONTINUATION  
THE ROTATING HARMONIC OSCILLATOR EIGENVALUE PROBLEM II: ANALYTIC PERTUR-  
BATION THEORY

J.McConnell, Dublin Inst.for Advanced Studies,Dublin 4, Ireland  
SERIES EXPANSION OF THE STOCHASTIC ROTATION OPERATOR

PL.Muthuramalingam, Indian Statistical Institute, New Delhi-110016,India  
SPECTRAL PROPERTIES OF VAGUELY ELLIPTIC PSEUDO-DIFFERENTIAL OPERATORS WITH  
MOMENTUM DEPENDENT LONG-RANGE POTENTIALS USING TIME DEPENDENT SCATTERING  
THEORY

L.Papiez,Dublin Institute for Advanced Studies, Dublin 4,Ireland  
STOCHASTIC FORMULATION OF FEYNMAN PATH INTEGRALS FROM THE LEAST ACTION  
POINT OF VIEW

G.Prince, School of Theor.Phys., Dublin Inst. for Advanced Studies,Dublin 4  
REFLECTIONS ON THE SYMMETRY-CONSERVATION LAW DUALITY AND THE RUNGE-LENZ  
VECTOR  
THE RESOLUTION OF SOME KILLING TENSOR PROBLEMS IN GENERAL RELATIVITY

H.Reiter,Inst.f.Mathem.,Univ.Wien and  
W.Thirring, Inst.f.Theor.Phys., Univ.Wien  
ARE  $x$  AND  $p$  INCOMPATIBLE OBSERVABLES?

M.Requardt, Inst. f. Theor. Phys., Univ. Göttingen  
THERE ARE ONLY TWO NATURAL FORCE LAWS IN CLASSICAL POINT MECHANICS BEING  
REALIZED BY NATURE

A.Soffer and L.P.Horwitz, Tel Aviv Univ., Ramat Aviv, 69978 Tel Aviv,Israel  
 $B^*$ -ALGEBRA REPRESENTATIONS IN A QUATERNIONIC HILBERT MODULE\*

P.Vanheuverzwijn, Inst. voor Theor.Fysica Celestijnenlaan 200 D,B-3030 Leuven  
LOCAL TRANSFORMATIONS, KMS STATES, AND CANONICAL KMS STATES

K.Veselić, Fachbereich Mathematik,Fern-Univ. Hagen,Postf. 940, D-5800 Hagen  
ON THE NON-RELATIVISTIC LIMIT OF THE BOUND STATES OF THE KLEIN-GORDON  
EQUATION

P.Winternitz, Centre de Recherche de Mathém. Appl. Univ. de Montréal C.P.6128,  
Montréal, Québec, Canada H3C 3J7  
LIE GROUPS AND SOLUTIONS OF NONLINEAR DIFFERENTIAL EQUATIONS

Books  
H.Baumgärtel and M. Wollenberg "Mathematical Scattering Theory"  
Akademie-Verlag (DDR) Berlin 1983, Preis 80,-- M  
W.Thirring "A Course in Mathematical Physics 4, Quantum Mechanics of Large Systems"  
Springer, New York 1983, ISBN 0-387-87101-8, DM 57,--

March 1983

Correction or  
Change of Address

#581 R. Carmona, Department of Mathematics, University of California  
Irvine, CA 92717

105 I. Daubechies, TENA, Vrye Univ. Bruessel, B-1050, Bruessel, Belgium

680 H.A. Warchall, Department of Mathematics, RLM 8-100  
University of Texas, Austin, TX 78712

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Please note that mail addressed to  
Prof. P.L. Torres (#473)  
Depto de Fisica  
Fac. De Ciencias  
U.C.V. Aptdo  
10098 Caracas Venezuela

has been returned marked "No Corresponde al Apartado Indicado".

45 P.Bona,Department of Theoretical Physics,Math.-Phys.Faculty Comenius Univ.  
Mlynska dolina F2, CS-842 15 Bratislava Czechoslovakia

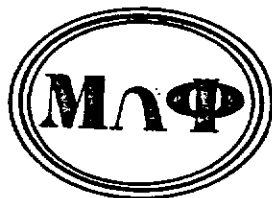
708 D.Christodoulou, Courant Institute of Mathematical Sciences  
New York University, 251 Mercer Str. New York,NY 10012,USA

155 H.-O. Georgii, Mathematisches Institut der Univ. München,  
Theresienstr. 39, D-8000 München 2

235 A.Jensen, Department of Mathematics, University of Kentucky,  
Lexington, KY 40506, USA

252 B.S.Kay, THE UNIVERSITY OF CHICAGO, THE ENRICO FERMI INSTITUTE,  
5640 Ellis Avenue, Chicago Ill. 60637, USA

INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS



IAMP NEWS BULLETIN

June 1983

Progress Report

- (1) The publishing company Birkhäuser Boston Inc. has become an Associate Member. They offer IAMP members a discount on their books, which may be obtained by writing to Dr. Klaus Peters, Birkhäuser Boston Inc., 380 Green St., P.O. Box 2007, Boston, MA 02139, USA
- (2) The IAMP meeting in Boulder, Colorado will take place, as previously announced, from August 2 to 10, 1983. Detailed information was given in the March 1983 NEWS BULLETIN and is reprinted below.
- (3) The IAMP will have a General Assembly during the Boulder meeting. It is scheduled for Thursday, August 4 at 5.00 p.m.

Agenda: (1) Progress report by the IAMP President.  
(2) General discussion.

- (4) With the issue of the News Bulletin an up-to-date list of IAMP members, prepared by W. Hunziker and K. Osterwalder, is being distributed. Please check your address and membership number. (You will need the latter for voting.) All questions concerning membership should be addressed to Prof. W. Hunziker, Theoretische Physik, E.T.H.-Hönggerberg, CH-8093 Zürich, Switzerland.

Elliott Lieb

Conferences:

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July 17-23,83

Site: Boulder, Colorado  
Topic: FLUIDS AND PLASMAS: GEOMETRY AND DYNAMICS  
Chairman: Jerrold E.Marsden, Department of Mathematics,  
Univ.of California, Berkeley,CA 94720 (415-642-5229)

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2. Dynamical systems methods, especially chaotic dynamics.
3. Nonlinear hyperbolic PDE's, convergence and computation.

Organizing Committee:

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Philip Holmes, Theoretical and Applied Mechanics, Cornell Univ.,  
Ithaca, NY 14853

Advisors:

Alexandre Chorin and Alan Weinstein

Chairman of the AMS Summer Conference Committee:

Ronnie O.Wells, Department of Mathematics, Rice University,  
Houston TX 77001

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SEVENTH INTERNATIONAL CONGRESS ON MATHEMATICAL PHYSICS,  
Boulder, Colorado

Aug.2-10,83

Sponsors: National Science Foundation, University of Colorado,  
International Association of Mathematical Physics,  
University of Denver, IMI, IUPAP.

Conference Committee: H.Araki, W.Brittin, J.Fröhlich, K.Gustafson,  
J.Lebowitz, E.Lieb, W.Wyss.

Speakers include: T.Balaban, H.J.Borchers, D.Bridges, V.S.Buslaev,  
J.P.Eckmann, V.Enß, M.Fisher, G.Gallavotti, J.Ginibre,  
T.Hida, G.Parisi, R.Temam, E.Trubowitz, S.Varadhan, C.N.Yang.

Session Organizers include: J.Klauder, J.Glimm, E.Zehnder, R.Seiler,  
D.Szasz, L.Streit, W.Thirring, C.DeWitt.

Program: In addition to invited lectures, there will be special sessions on: mathematical methods, computational methods, classical dynamics, quantum dynamics, equilibrium statistical mechanics and condensed matter, nonequilibrium statistical mechanics and irreversible processes, quantum field theory and relativity, supersymmetry and super gravity. Abstracts of poster presentations consistent with these themes are welcomed and should be sent to the executive secretary.

Round Table Discussion: The contributions of Mathematical Physics to Science. Participants include E.Lieb, M.Fisher, R.Haag, A.Wightman, C.N.Yang.

Information: Professor Walter Wyss, Executive Secretary, IAMP Congress 83, Department of Physics, Campus Box 390, University of Colorado, Boulder, Colorado, 80309, U.S.A.

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SECOND WORKSHOP ON NONLINEAR EVOLUTION EQUATIONS AND DYNAMICAL SYSTEMS (Chania, Crete, Aug. 13-28, 1983). It is planned to organize, in the summer 1983, another International Workshop analogous to that held in the summer 1980 and described in Physica 2D (1981) 545-548. In view of the success of that exercise, it is planned to follow essentially the same format, as regards the scientific scope and procedure, the organizational structure and the venue. Thus the Workshop will be held at the Orthodox Academy of Crete near Chania on the island of Crete and an all inclusive flat rate will be charged to all participants from countries with convertible currencies (\$ 450 per accompanying adult; up to possible adjustments due to inflation). The Workshop is tentatively scheduled for August 13-28, 1983. Anybody who thinks of participating is welcome to write either to F.Calogero, Dipartimento di Fisica, Università di Roma I, piazzale Aldo Moro 2, I-00185 Roma or to A.Verganelakis, Nuclear Research Center, "Demokritos", Aghia Paraskevi, Attikis, Athens Greece.

Aug.13-28,83

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AN INTERNATIONAL SUMMER SCHOOL WILL BE ORGANIZED IN ROMANIA:  
Title: THEORETICAL ASPECTS OF CRITICAL PHENOMENA  
Period: August 25 - September 6, 1983 Poiana Brasov, Romania  
Organizers: Romanian Academy of Sciences, Central Inst.of Physics  
Director: Valentin Ceausescu, Central Institute of Physics,  
P.O.B. - mg 6, Bucharest, Romania

Aug.25-Sept.6,  
1983

#### POSTDOCTORAL POSITION

A postdoctoral position is available for 12 months beginning October 1983 at the Center for Interdisciplinary Research of Bielefeld University in the context of "Project No. 2" (see the Dec.1982 Bulletin for more information on the project). Application should be addressed to L.Streit, Director, ZiF, Bielefeld University, D-4800 Bielefeld 1, FRG

PREPRINTS (Received in Princeton)

- R. Arens (Dept. of Math., Univ. of California, Los Angeles CA 90024 USA)  
REDUCING THE ORDER OF THE LAGRANGEAN FOR A CLASSICAL FIELD IN CURVED  
SPACE-TIME
- G.A. Goldin (Dept. of Math. Sci., Northern Illinois Univ., DeKalb, IL 60115 USA)  
and D.H. Sharp (Theor. Div., Los Alamos National Laboratory, Los Alamos NM  
87545 USA)  
ROTATION GENERATORS IN TWO-DIMENSIONAL SPACE AND PARTICLES OBEYING  
UNUSUAL STATISTICS
- O.W. Greenberg and K.I. Macrae (Center for Theor. Phys. Univ. of Maryland,  
College Park, Maryland 20742 USA)  
LOCALLY GAUGE-INVARIANT FORMULATION OF PARASTATISTICS, to be published  
in Nucl. Phys. B
- M.W. Kalinowski and G. Kunstatter (Phys. Dept., Univ. of Toronto, Toronto, Ont.  
Canada M5S 1A7)  
SPHERICALLY SYMMETRIC SOLUTION IN THE NONSYMMETRIC KALUZA-KLEIN THEORY
- A. Klein and J. F. Perez (Dept. of Math., Univ. of California, Irvine CA  
92717 USA)  
SUPERSYMMETRY AND DIMENSIONAL REDUCTION: A NON-PERTURBATIVE PROOF
- J.H.H. Perk (Inst. for Theor. Phys., SUNY, Stony Brook NY 11794 USA) and  
C.L. Schultz (Gordon McKay Lab., Harvard Univ. Cambridge, MA 02138 USA)  
DIAGONALIZATION OF THE TRANSFER MATRIX OF A NONINTERSECTING STRING MODEL
- B.M. McCoy, J.H.H. Perk and R.E. Shrock (Inst. for Theor. Physics, SUNY,  
Stony Brook, NY 11794 USA)  
CORRELATION FUNCTIONS OF THE TRANSVERSE ISING CHAIN AT THE CRITICAL FIELD  
FOR LARGE TEMPORAL AND SPATIAL SEPARATIONS
- J.H.H. Perk (Inst. for Theor. Phys., SUNY, Stony Brook, NY 11794 USA) and  
H.W. Capel, G.R.W. Quispel and F.W. Nijhoff (Inst.-Lorentz voor Theor.  
Natuurkunde Nieuwsteeg 18, 2311 SB Leiden, The Netherlands)  
FINITE-TEMPERATURE CORRELATIONS FOR THE ISING CHAIN IN A TRANSVERSE FIELD
- E. Prugovecki (Dept. of Math., Univ. of Toronto, Toronto, Canada M5S 1A1)  
STOCHASTIC QUANTUM MECHANICS AND QUANTUM SPACETIME, Monograph, to be  
published 1983
- S.T. Ali (Dept. of Math. Concordia Univ., Montreal, Canada H4B 1R6) and  
E. Prugovecki (as above)  
EXTENDED HARMONIC ANALYSIS OF PHASE SPACE REPRESENTATIONS FOR THE  
GALILEI GROUP
- E. Prugovecki (as above) FINITE CHARGE AND FIELD RENORMALIZATIONS IN RECIPRO-  
CALLY INVARIANT QUANTUM ELECTRODYNAMICS
- P.A. Vuillermot (Dept. of Math, The Univ. of Texas, Arlington, TX 76019 USA)  
A CLASS OF STURM-LICUVILLE EIGENVALUE PROBLEMS WITH POLYNOMIAL AND  
EXPONENTIAL NONLINEARITIES



PREPRINTS (received in Japan)

June, 1983

- H.Araki (Research Inst.Math.Sci., Kyoto Univ. Kyoto 606, Japan)  
ON THE XY-MODEL ON TWO-SIDED INFINITE CHAIN  
ON A  $C^*$ -ALGEBRA APPROACH TO PHASE TRANSITION IN THE TWO-DIMENSIONAL ISING  
MODEL
- Y.Kurata (Department of Physics, Tohoku Univ.Sendai 980, Japan)  
ANALYTIC INVESTIGATION OF THE KONDO EFFECT IN HIGHLY CONCENTRATED MAGNETIC  
ALLOYS, II - A COLLECTIVE MODE AND SPECTRAL SHAPES

PREPRINTS (received in Bielefeld)

- C o r r e c t i o n : R.Alicki and J.Messer,(Theor.Physik, Univ.München,  
Theresienstr. 37,D-800 München 2)  
NONLINEAR QUANTUM DYNAMICAL SEMIGROUPS FOR MANY-BODY  
OPEN SYSTEMS
- D.Aerts (Theoretische Natuurkunde Vrije Universiteit Brussel, Pleinlaan 2,  
1050 BRUSSEL, Belgium)  
CLASSICAL THEORIES AND NON CLASSICAL THEORIES AS SPECIAL CASES OF A MORE  
GENERAL THEORY

CONSTRUCTION OF THE TENSORPRODUCT FOR THE LATTICES OF PROPERTIES OF  
PHYSICAL ENTITIES

- P.C.Aichelburg (Institut für Theoretische Physik, Universität Wien, Boltzmann-  
gasse 5, A-1090 Wien, Austria) and R.Güven, TÜBITAK Research Institute  
for Basic Sciences P.O.B. 74, Gebze, Kocaeli, Turkey  
SUPERSYMMETRIC BLACK HOLES IN  $N = 2$  SUPERGRAVITY THEORY
- S.Albeverio, F.Gesztesy, R.Høegh-Krohn,W.Kirsch (Ruhr-Universität Bochum, Mathe-  
matisches Institut)  
ON POINT INTERACTIONS IN ONE DIMENSION
- S.T.Ali (Department of Mathematics, Concordia University, 7141 Sherbrooke St-West  
Montreal P.Q., Canada H4B 1R6) and N.Giovannini (Département de Physique  
Théorique, Université de Genève, CH 1211 Genève 4, Switzerland)  
ON SOME K-REPRESENTATIONS OF THE POINCARÉ AND EINSTEIN GROUPS
- M.S.Ashbaugh and Carl Sundberg (Department of Mathematics, University of  
Tennessee, Knoxville, Tennessee 37996-1300 USA)  
AN IMPROVED STABILITY RESULT FOR RESONANCES
- J.Audretsch and Claus Lämmerzahl (Fakultät für Physik der Universität Konstanz  
Postfach 5560, D-7750 Konstanz FRG)  
NEUTRON INTERFERENCE: GENERAL THEORY OF THE INFLUENCE OF GRAVITY,  
INERTIA AND SPACE-TIME TORSION
- J.Avron, W.Craig and B.Simon (Division of Physics, Mathematics and Astronomy,  
California Institute of Technology, Pasadena, California 91125 USA)  
LARGE COUPLING BEHAVIOR OF THE LYAPUNOV EXPONENT FOR TIGHT BINDING ONE  
DIMENSIONAL RANDOM SYSTEMS

- J.L.Birman (Physics Department, City College, CUNY, New York, NY 10031 USA)  
and A.I.Solomon (Faculty of Mathematics, The Open University, Milton  
Keynes, U.K.)  
DYNAMICAL GROUPS AND COEXISTENCE OF SUPERCONDUCTIVITY, CHARGE DENSITY  
WAVES AND MAGNETISM
- D.Bollé (Instituut voor Theoretische Fysica, Universiteit Leuven, B-3030 Leuven)  
and F.Gesztesy (Institut für Theor.Phys., Universität Graz, A-8010 Graz)  
ON AVERAGED ANGULAR TIME DELAY FOR TWO-BODY SCATTERING
- D.Bollé, F.Gesztesy (addresses see above) and S.F.J.Wilk (Department of Physics,  
Univ. of Manitoba Winnipeg, Manitoba, Canada R3T 2N2)  
NEW RESULTS FOR SCATTERING ON THE LINE
- J.Burzlaff (Dublin Institute for Advanced Studies, 10 Burlington Road,  
Dublin 4, Ireland)  
A CLASSICAL LUMP IN SU(2) GAUGE THEORY WITH A HIGGS DOUBLET
- G.Clement (Département de Physique Théorique, Université de Constantine,  
Constantine, Algérie)  
AXISYMMETRIC REGULAR MULTI-WORMHOLE SOLUTIONS IN FIVE-DIMENSIONAL GENERAL  
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BOUND STATES OF A GRAVITATIONAL SOLITON AND A TEST PARTICLE.  
GRAVITATIONAL MULTI-SOLITONS IN (2+1) DIMENSIONS.  
A CLASS OF WORMHOLE SOLUTION TO HIGHER DIMENSIONAL GENERAL RELATIVITY.
- C.Cronström and J.Mickelsson (University of Helsinki, Research Institute for  
Theoretical Physics, Siltavuorenpenger 20 C, SF-00170 Helsinki 17, Finland)  
ON TOPOLOGICAL BOUNDARY CHARACTERISTICS IN NON-ABELIAN GAUGE THEORY
- W.Craig and B.Simon (Department of Mathematics, California Institute of Technology  
Pasadena, California 91125 USA)  
LOG HÖLDER CONTINUITY OF THE INTEGRATED DENSITY OF STATES FOR STOCHASTIC  
JACOBI MATRICES
- H.L.Cycon (Technische Universität Berlin, Fachbereich 3 - Mathematik, Straße des  
17. Juni 135, D-1000 Berlin 12 FRG)  
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SCHRÖDINGER EQUATION WITH COULOMB POTENTIAL
- P.Exner (Laboratory of Theor.Phys. JINR Dubna, Head Post, P.O.B. 79, Moscow USSR)  
ON THE REPRESENTATIONS OF POINCARÉ GROUP ASSOCIATED WITH UNSTABLE PARTICLES
- J.R.Fontaine (Institut de Physique Théorique, Université Catholique de Louvain,  
Chemin du Cyclotron, 2 B-1348 Louvain-la-neuve, Belgium)  
SCALING LIMIT OF SOME CRITICAL MODELS
- J.-D.Fournier and U.Frisch, C.N.R.S., Observatoire de Nice, B.P.252,  
06007 Nice Cedex, France  
L'EQUATION DE BURGERS DÉTERMINISTE ET STATISTIQUE

N.Giovannini (Département de Physique Théorique, Université de Genève,  
CH-1211 Genève 4, Switzerland)  
ON A COVARIANT RELATIVISTIC DESCRIPTION OF INSTANTANEOUS WAVE PACKET  
REDUCTIONS

A.M.Grundland, J.Harnad and P.Winternitz (Centre de Recherche de Mathématiques  
Appliquées, Université de Montréal, Case Postale 6128, Succursale "A",  
Montréal, P.Q., H3C 3J7 Canada)  
SYMMETRY REDUCTION FOR NONLINEAR RELATIVISTICALLY INVARIANT EQUATIONS

G.H.Hegerfeldt (Institut für Theoretische Physik der Universität Göttingen,  
Bunsenstr. 9, D-3400 Göttingen FRG)  
A GENERALIZED SCHWARZ'S INEQUALITY FOR RANDOM OPERATORS

J.Hietarinta (Department of Physical Sciences University of Turku,  
Particle Theory Group, 20500 Turku 50, Finland)  
A SEARCH FOR INTEGRABLE TWO DEGREE OF FREEDOM HAMILTONIAN SYSTEMS  
WITH POLYNOMIAL POTENTIAL  
INTEGRABLE FAMILIES OF HENON-HEILES TYPE HAMILTONIANS AND A NEW DUALITY

K.R.Ito (Department of Mathematics, Bedford College (University of London,  
Regents Park, London NW1 4NS, U.K.)  
STUDY OF THE KOSTERLITZ-THOULESS TRANSITIONS BY THE MAYER EXPANSION  
- FINITENESS OF THE PERTURBATIONS -

M.Iosifescu and H.Scutaru (Central Institute of Physics, Institute for Physics  
and Nuclear Engineering, Bucharest, P.O.Box MG-6, Romania)  
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CANONICAL REALIZATIONS OF  $B_2 \sim C_2$  LIE ALGEBRAS.

W.Lücke (Institut für Theoretische Physik der Technischen Universität Clausthal,  
D-3392 Clausthal-Zellerfeld FRG)  
SPIN-STATISTICS THEOREM FOR FIELDS WITH ARBITRARY HIGH ENERGY BEHAVIOUR

A.Moussiaux, Ph.Tombal and Y.de Rop (Facultés Universitaires N.D.de la Paix  
Namur, Faculté des Sciences, Dép. de Phys., Rue de Bruxelles, 61  
B-5000 Namur Belgium)  
HAMIL, SHP "SHEEP" PROGRAMMING OF HAMILTONIAN FORMALISM IN GENERAL  
RELATIVITY

L.Papiez (Dublin Institute for Advanced Studies, 10 Burlington Road, Dublin 4,  
Ireland)  
THE LIMIT DIFFUSION MECHANISM OF RELAXATION FOR SPIN SYSTEMS

G.Prince (School of Theoretical Physics, Dublin Institute for Advanced Studies,  
10 Burlington Road, Dublin 4, Ireland)  
PROJECTIVE DIFFERENTIAL GEOMETRY AND GEODESIC CONSERVATION LAWS IN  
GENERAL RELATIVITY.

HOMOTHETIC KILLING TENSORS.

- B.Simon (Departments of Mathematics and Physics, California Institute of Technology, Pasadena, California 91125)  
KOTANI THEORY FOR ONE DIMENSIONAL STOCHASTIC JACOBI MATRICES.  
ON THE EQUALITY OF THE DENSITY OF STATES IN THE LLOYD AND MARYLAND MODELS.  
INSTANTONS, DOUBLE WELLS AND LARGE DEVIATIONS.  
NONCLASSICAL EIGENVALUE ASYMPTOTICS.
- W.G.Sullivan (Mathematics Department, University College, Dublin 4, Ireland)  
THE  $L^2$ -SPECTRAL GAP OF CERTAIN POSITIVE RECURRENT RANDOM WALKS
- G.Stragier, J.Quaegebeur, A.Verbeure (Instituut voor Theoretische Fysika, Universiteit Leuven, B-3030 Leuven Belgium)  
QUANTUM DETAILED BALANCE
- I.Ulehla, D.Adamova (Nuclear Centre, Faculty of Mathematics and Physics, Charles University, V Holešovičkách 2, 180 00 Prague 8 Czechoslovakia)  
BOUND STATE ENERGY EIGENVALUES FOR A GENERAL CLASS OF ONE-DIMENSIONAL PROBLEMS ON THE WHOLE AXIS  $(-\infty, \infty)$
- K.-K.Wan and R.G.D .McLean (University of St.Andrews, School of Physical Sciences St.Andrews, Fife, KY16 9SS, Scotland)  
ASYMPTOTIC LOCALIZATION AND SEPARATION OF STATES IN QUANTUM MECHANICS.  
ASYMPTOTIC LOCALIZATION AND SEPARATION AND THE SCATTERING OF QUANTUM STATES .
- K.K.Wan and I.H.McKenna (address see above)  
TEMPLÉS PARADOX ON THE SQUARING AND LINEARITY AXIOMS OF QUANTIZATION IN QUANTUM MECHANICS
- G.Wanders (Institut de Physique Théorique, Université de Lausanne, Bâtiment des Sciences Physique, CH-1015 Lausanne, Switzerland)  
DIAGONAL QCD, WITH MASSLESS QUARKS: GAUGE TRANSFORMATIONS AND MASS PERTURBATION

Y.M.Park, Department of Mathematics, Yonsei University, Seoul, Korea  
BOUNDS ON EXPONENTIALS OF LOCAL NUMBER OPERATORS IN QUANTUM STATISTICAL MECHANICS

G.Prince, School of Theoretical Physics, Dublin Institute for Advanced Studies  
Dublin 4, Ireland  
HOMOTHETIC KILLING TENSORS

THE "SYMMETRY-CONSERVATION LAW" DUALITY IN G.R. VIA A NEW APPROACH TO PROJECTIVE DIFFERENTIAL GEOMETRY.

A.Ronveaux, Facultés Universitaires N.D.de la Paix Namur, Faculté des Sciences,  
Dép.de Physique,Lab.de Phys.Mathém. et de Physique du Solide, Namur France  
SMALL OSCILLATIONS WHICH ARE NOT HARMONIC

B.Souillard, Centre de Physique Théorique Ecole Polytechnique, F-91128 Palaiseau  
Cédex, France  
ELECTRONS IN RANDOM AND ALMOST - PERIODIC POTENTIALS

M.Sorine, INRIA, Domaine de Voluceau, F-78153 Le Chesnay,France  
P.Winternitz, Centre de recherche de mathématiques appliquées,Univ.de  
Montréal, C.P.6128, Succ.A,Montréal,Québec,Canada H3C, 3J7  
SUPERPOSITION LAWS FOR NONLINEAR EQUATIONS ARISING IN OPTIMAL CONTROL THEORY

H.Spohn,Theoretische Physik, Univ.München, Theresienstr.37,D-8000 München F.R.G.  
LONG RANGE CORRELATIONS FOR STOCHASTIC LATTICE GASES IN A NONEQUILIBRIUM STEADY STATE

Change of address:

Professor Ju.M.Berezanskii  
Institute of Mathematics  
Ukrainian Academy of Sciences  
Kiev-4,Repin St.3  
U.S.S.R.

INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS



IAMP NEWS BULLETIN

September 1983

Progress Report

(1) The VIIth International Congress on Mathematical Physics took place at the University of Colorado, Boulder, August 2-10, 1983 and the IAMP General Assembly took place during the meeting on August 4. The Congress was well attended and successful and IAMP is grateful to the local organizers (W. Myss, Executive Secretary, W. Brittin, K. Gustafson) for their considerable work and hospitality.

(2) The IAMP Executive Committee, at its meeting on August 2, 1983 accepted the Financial Report for 1982 prepared by K. Osterwalder. It appears below. It was also decided to support the second International Conference on Random Fields in Kőszeg, Hungary, August 26 - September 1, 1984 (organized by J. Fritz and D. Szasz) with \$500. This will be used for the attendance of foreign participants.

(3) At its August 5, 1983 meeting, the IAMP Executive Committee accepted the Proposal by Ph. Combe, M. Mebkhout and J. Souriau to organize the VIIIth International Congress on Mathematical Physics at Luminy some time during the last two weeks of July, 1986. This was the only definite proposal received by the Executive Committee and therefore no vote on the matter by the membership was needed.

Elliott Lieb

INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS

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Mathematisches Seminar  
ETH - Lenggeln  
CH-8092 Zürich, SWITZERLAND

Financial Report for 1982

(Jan. 1, 1982 to Dec. 31, 1982)

1) Central Account in Geneva (Sfr.)

Income: Carried forward from 1981 5,492.73  
Dues received 1982 664.59  
T o t a l 6,157.32

Expenditure:

IAMP support for 1983 Workshop.  
Payment to Prof. C.A. Hurst  
University of Adelaide  
Adelaide, South Australia (\$ 500.--) 1,114.--

Balance: Sfr. 5,043.32

2) Princeton Account (US \$)

Income: Carried forward from 1981 3,453.22  
Dues received 1982 2,460.00  
Interest on bank account (Nassau Savings) 71.68  
Interest on Merrill-Lynch account 402.94  
T o t a l 6,387.84

Expenditure:

Mailing costs 174.57

Balance: \$ 6,213.27

Holdings:

Nassau Savings and Loan Assoc.  
Acct. No. 17589 \$ 2,810.33  
Merrill Lynch Pierce Fenner and  
Smith, Ready Assets Acct.  
No. 83404080 \$ 3,402.94  
T o t a l \$ 6,213.27

Financial Report for 1982

3) Bielefeld Account (DM)

Income: Carried forward from 1981 3,199.16  
Dues received 1982 4,430.58  
Interest 19.89  
T o t a l 7,649.63

Expenditure:

Bank fee 44.48

Balance: DM 7,605.15

4) Tokyo Account (¥)

Income: Carried forward from 1981 4,400.--  
Transferred from Kyoto Account 191,292.--  
195,692.--  
Dues received 1982 214,100.--  
Interest 1,586.--  
T o t a l 411,378.--

Expenditure:

Printing and mailing costs 20,864.--

Balance: ¥ 390,514.--

5) Warszawa (Zl.)

a) Account # 3007-1424 (September 29, 1981 - December 31, 1982)

Income: Balance on Sept. 29, 1981 8,100.--  
Dues received until Dec. 31, 1982 4,500.--  
T o t a l 12,600.--

Expenditure:

b) Account # 2857-1424

Income: Balance on December 31, 1982 6,150.--

Expenditure:

T o t a l balance: Zl. 18,750.--

*K. Osterwalder*  
Konrad Osterwalder, Treasurer

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Preprints (received in Princeton)

September, 1983

- M. Aizenman (Depts. of Math. and Phys., Rutgers Univ. New Brunswick, NJ 08903 USA) JT. and L. Chayes (Dept. of Phys. Princeton Univ., Princeton NJ 08544 USA) J. Fröhlich (Theor. Phys. ETH-Hönggerberg, CH-8093 Zurich, Switzerland) and L. Russo (Ist. di Mat., Univ. di Modena, I-41100 Modena Italy) ON A SHARP TRANSITION FROM AREA LAW TO PERIMETER LAW IN A SYSTEM OF RANDOM SURFACES
- M. Aizenman (address as above)  
RIGOROUS RESULTS ON THE CRITICAL BEHAVIOR IN STATISTICAL MECHANICS
- M. Aizenman and Jürg Fröhlich (addresses as above)  
TOPOLOGICAL ANOMALIES IN THE  $n$ -DEPENDENCE OF THE  $n$ -STATES POTTS LATTICE GAUGE THEORY
- J.E. Avron (Div. of Phys. Math. and Astro., California Inst. of Technology, Pasadena, CA 91125 USA), R. Seiler (Inst. for Theor. Phys., Free Univ. of Berlin, Berlin, W. Germany), and B. Simon (same address as Avron)  
HOMOTOPY AND QUANTIZATION IN CONDENSED MATTER PHYSICS
- J.E. Avron (address as above), J.E. Taylor (Dept. of Math. Rutgers Univ., New Brunswick, NJ 08903 USA), and R.K.P. Zia (Dept. of Phys. VPI, Blacksburg, VA 24060 USA) EQUILIBRIUM SHAPES OF CRYSTALS IN A GRAVITATIONAL FIELD: CRYSTALS ON A TABLE
- G.A. Battle (Dept. of Math., Texas A&M Univ., College Station, TX 77843 USA) and P. Federbush (Dept. of Math. Univ. of Michigan, Ann Arbor, MI 48109 USA)  
A NOTE ON CLUSTER EXPANSIONS, TREE GRAPH IDENTITIES, EXTRA  $1/N!$  FACTORS!!!
- J.A. Brooke and W. Guz, (Dept. of Math. Univ. of Toronto, Toronto, Canada M5S 1A1)  
THE BARYON MASS SPECTRUM AND THE RECIPROCITY PRINCIPLE OF BORN
- J.A. Brooke and W. Guz (address as above)  
RELATIVISTIC CCR'S AND THE HARMONIC OSCILLATOR MODEL OF ELEMENTARY PARTICLES
- G.A. Goldin (Dept. of Phys., Princeton University, Princeton, NJ 08544 USA) and D.H. Sharp (Theor. Div. Los Alamos Nat. Laboratory, Los Alamos NM 87545 USA)  
PARTICLE SPIN FROM REPRESENTATIONS OF THE DIFFEOMORPHISM GROUP
- D.P. Greenwood and E. Prugovecki (Dept. of Math. Univ. of Toronto, Toronto, Canada M5S 1A1) STOCHASTIC MICROCAUSALITY IN RELATIVISTIC QUANTUM MECHANICS
- C. Radin (Dept. of Math. Univ. of Texas, Austin, TX 78712 USA)  
CLASSICAL GROUND STATES IN ONE DIMENSION
- C. Radin (address as above) and L.S. Schulman (Phys. Dept. Technion, Haifa, Israel)  
ON THE PERIODICITY OF CLASSICAL GROUND STATES
- D.H. Sharp (Theor. Div., Los Alamos Nat. Lab., Los Alamos NM 87545 USA)  
AN OVERVIEW OF RAYLEIGH-TAYLOR INSTABILITY
- A.H. Völkel (Inst. für Math. III, Freie Univ. Berlin, Germany)  
A GAUGE QUANTUM FIELD THEORY OF CONFINED QUARKS AND GLUONS

PREPRINTS (received in Bielefeld)

M.Bednář\*, J.Blank\*\*, P.Exner, M.Havliček\*\*, Lab. of Theor. Phys. JINR Dubna, Moscow USSR  
\*Institute of Physics, Czechoslovak Academy of Sciences, Prague CSSR  
\*\*Nuclear Centre of the Charles University, Prague CSSR  
REPRESENTATIONS OF  $osp(1,4)$  IN TERMS OF THREE BOSON PAIRS AND MATRICES OF ARBITRARY EVEN ORDER. THE BASIC THEOREM

R.Beig, Institut für Theoretische Physik, Universität Wien, Wien, Austria  
INTEGRATION OF EINSTEIN'S EQUATIONS NEAR SPATIAL INFINITY\*

M.Boiti\*, F.Pempinelli\*, and G.Z.Tu\*\*, \*Dipartimento di Fisica dell'Università, Lecce, Italia and Istituto Nazionale di Fisica Nucleare, Sezione di Bari, Italia  
\*\*Computing Center of Chinese Academy of Sciences, Beijing, China  
CANONICAL STRUCTURE OF SOLITON EQUATIONS VIA ISOSPECTRAL EIGENVALUE PROBLEMS

Ch.Borgs and E.Seiler, Max-Planck-Institut für Physik und Astrophysik - Werner Heisenberg Institut für Physik - Munich (Fed.Rep.Germany)  
LATTICE YANG-MILLS THEORY AT NONZERO TEMPERATURE AND THE CONFINEMENT PROBLEM

J.Bricmont, Institut de Physique Theorique U.C.L. 2, Chemin du Cyclotron, B-1348 Louvain-la-Neuve, Belgium, Koji Kuroda, Dep. of Mathematics, Keio Univ., Hiyoshi 3-14-1, Kohoku-ku, Yokohama 223, Japan and J.L.Lebowitz, Dep. of Mathematics and Physics Rutgers University, New Brunswick, NJ 08903 USA  
THE STRUCTURE OF GIBBS STATES AND PHASE COEXISTENCE FOR NON-SYMMETRIC CONTINUUM WIDOM ROWLINSON MODELS

E.Buffet, Dep. of Math. Phys., Univ. College, Belfield, Dublin 4, Ireland  
Ph. de Smedt, Inst. v. Theor. Fysica, Univ. Leuven, B-3030 Leuven, Belgium  
J.V.Pulé, Dublin Inst. f. Adv. Stud., 10 Burlington Road, Dublin 4, Ireland  
ON THE DYNAMICS OF THE OPEN BOSE GAS

E.Buffet, Dep. of Math. Phys., Univ. College, Belfield, Dublin 3, Ireland  
Ph. de Smedt and J.V. Pulé, Inst. Theor. Fysica, Univ. Leuven, B-3030 Leuven, Belgium  
THE CONDENSATE EQUATION FOR SOME BOSE SYSTEMS

J.Bürzloff and D.H.Tchrakian, School of Theoretical Phys., Dublin Inst. f. Adv. Stud., 10 Burlington Road, Dublin 4, Ireland  
VORTEX SOLUTIONS IN THE YANG R-GAUGE

J.Bürzloff, Dublin Inst. f. Adv. Stud., 10 Burlington Road, Dublin 4, Ireland  
UNIQUENESS OF THE BOGUTA SOLUTION

J.Bystricky, DPhPE, CEN Saclay, F-91190 Gif-sur-Yvette, France  
P.LaFrance, CRMA, Univ. de Montréal, C.P. 6128, Montréal, Québec, Canada H3C 3J7  
F.Lehar, CPhPE, CEN Saclay, F-91190 Gif-sur-Yvette, France  
F.Perrot, Univ. de Montréal, P.Winternitz, Univ. de Montréal  
RECONSTRUCTION OF PROTON-PROTON PARTIAL WAVE AMPLITUDES USING  $O(4)$  EXPANSIONS

D.David, J.Harnad, and S.Shnider, Centre de recherche de mathém. appliquées, Univ. de Montréal, C.P. 6128, Montréal, Québec, Canada H3C 3J7  
MULTI-SOLITON SOLUTIONS TO THE THIRRING MODEL THROUGH THE REDUCTION METHOD

D.David, adress see above  
ON AN EXTENSION OF THE CLASSICAL THIRRING MODEL

W.Driessler and St.J.Summers, Fachbereich Physik, Universität Osnabrück, D-4500 Osnabrück, Fed.Rep.Germany  
ON COMMUTATORS AND SELF-ADJOINTNESS

S.Doplicher, F.Figliolini, D.Guido, Dipartimento di Matematica Univ. di Roma "La Sapienza", Piazzale Aldo Moro 2, 00185 Roma Italy  
INFRARED REPRESENTATIONS OF FREE BOSE FIELDS

B.Durhuus, Niels Bohr Institute, Blegdamsvej 17, DK-2100 Copenhagen Ø, Denmark  
J.Fröhlich, Theoretical Physics, ETH-Hönggerberg, CH-8093 Zürich, Switzerland  
T.Jonsson, Nordita, Blegdamsvej 17, DK-2100 Copenhagen Ø, Denmark  
SELF-AVOIDING AND PLANAR RANDOM SURFACES ON THE LATTICE

V.Enß, Institut für Mathematik Ruhr-Universität, D-4630 Bochum 1, Fed. Rep. Germany  
SCATTERING AND SPECTRAL THEORY FOR THREE PARTICLE SYSTEMS

M.Fannes, Ph. Martin, A.Verbeure, Instituut voor Theor. Fysica, Universiteit Leuven, B-3030 Leuven, Belgium  
ON THE EQUIPARTITION LAW IN QUANTUM STATISTICAL MECHANICS

N.Gisin, Dép. de Physique Théor., Univ. de Genève, 122 GENEVE 4, Switzerland  
PROPENSITIES AND THE STATE-PROPERTY STRUCTURE OF CLASSICAL AND QUANTUM SYSTEMS

A MODEL OF IRREVERSIBLE DETERMINISTIC QUANTUM DYNAMICS

R.Graham, Defense Research Establishment Atlantic, P.O. Box 1012, Dartmouth, Nova Scotia, B2Y 3Z7, Canada  
A GEOMETRIC INTERPRETATION OF THE ROUGHENING TRANSITION IN ISING MODELS

Z.Haba, Instytut Fizyki Teoretycznej Uniwersytetu Wrocławskiego, Wrocław Poland  
BEHAVIOR IN STRONG FIELDS OF EUCLIDEAN GAUGE THEORIES. II.

J.Harnad\*, Y.Saint-Aubin\*\*, and S.Shnider\*  
\*Centre de recherche de mathématiques appliquées, and Department of Mathematics, McGill University, Montreal Canada  
\*\*Center for Theoretical Physics, Massachusetts Inst. of Technology.  
BACKLUND TRANSFORMATIONS FOR NONLINEAR SIGMA MODELS WITH VALUES IN RIEMANNIAN SYMMETRIC SPACES

E.J.Kanellopoulos, Zentrum für Datenverarbeitung der Universität Tübingen and Th.V.Kanellopoulos, Institut für Theor. Physik der Univ. Tübingen Fed. Rep. Germany  
LEVINSON'S THEOREM FOR SCHRÖDINGER AND DIRAC CASE

J.T.Lewis and Hans Maassen, Dublin Inst. f. Adv. Stud., 10, Burlington Road, Dublin 4 Ireland  
HAMILTON MODELS OF CLASSICAL AND QUANTUM STOCHASTIC PROCESSES

J.Löffelholz, RTZ und Sektion Physik der Karl-Marx-Univ., DDR-7010 Leipzig GDR  
NEUMANN FIELDS

M.Lorente, Dep. de Metodos Matematicos de la Fisica, Facultad de Ciencias Fisicas, Univ. Complutense, Madrid - 3, Spain and  
B.Gruber, Physics Dep., Southern Illinois Univ., Carbondale, Ill. 62901 USA

CONSTRUCTION OF EXTREMAL VECTORS FOR VERMA SUBMODULES OF VERMA MODULES

D.Mayer, Institut für Angewandte Mathem. Univ. Heidelberg, Im Neuenheimer Feld 294, D-6900 Heidelberg, F.R.G.  
APPROACH TO EQUILIBRIUM: KUZMIN'S THEOREM FOR DISSIPATIVE AND EXPANDING MAPS

A.Moussiaux - Ph. Tombal - Y. De Rop, Laboratoire de Physique Mathématique et de Physique du Solide, Fac. Univ. N.D. de la Paix - Namur France  
HAMIR.SHP INTRODUCTION DE LA MATIERE DANS LE FORMALISME HAMILTONIEN

J.McConnel, Dublin Inst. f. Adv. Stud., Dublin 4, Ireland  
ANALYTICAL APPROACH TO THE STUDY OF MOLECULAR ROTATION IN LIQUIDS

T.Murphy and L.O'Raifeartaigh, Dublin Inst. f. Adv. Stud., Dublin 4, Ireland  
EFFECT OF THE RENORMALIZATION GROUP ON THE SYMMETRY BREAKING PATTERS OF  $SU(n)$  HIGGS POTENTIALS

H.Nakazawa, Dublin Inst. f. Adv. Studies, Dublin 4, Ireland  
WIENER-ITO DECOMPOSITION OF POLYNOMIAL OPERATORS FORMED WITH BOSON QUASI-FREE FIELDS



# INTERNATIONAL ASSOCIATION OF MATHEMATICAL PHYSICS



IAMP NEWS BULLETIN

December 1983

## Progress Report

By virtue of the IAMP affiliation with the American Institute of Physics, IAMP members can order certain AIP publications at members' rates. The full list, together with prices, is given in this News Bulletin. (Note that some journals are not available to members of affiliated societies.) The address of the AIP is 335 E. 45th St., New York, NY 10017, U.S.A.

The journals of the Institute of Physics (U.K.) are also available through AIP, but only to U.S., Canadian and Mexican residents (see the attached list). For interested IAMP members who are resident elsewhere, the IOP has kindly offered the following journals at members' rates. Orders and remittances should be made (in Sterling only) to: The Marketing Manager, The Institute of Physics, Techno House, Redcliffe Way, Bristol BS1 6NX, England.

Journal of Physics A: £ 27 (UK), £41 (overseas)

Journal of Physics B: £ 34 (UK), £52 (overseas)

Classical and Quantum

Gravity: £ 14 (UK), £14 (overseas)

(The overseas price is higher because the journals are "airspeeded".) During 1984, subscribers to Journal of Physics A will receive Classical and Quantum Gravity at no extra charge.

Elliott Lieb

# Publications

In addition to special society rates allowed to members, individual members of the AIP Member and Affiliated Societies may subscribe, for their personal use only, to the following publications at the rates indicated.

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| Journal of Vacuum Science and Technology A      | 4          | 175.00          | 183.00                   | 191.00          | 202.00          |
| Journal of Vacuum Science and Technology B      | 4          | 175.00          | 183.00                   | 191.00          | 202.00          |
| Journal of Vacuum Science and Technology A&B    | 8          | 225.00          | 241.00                   | 257.00          | 279.00          |
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January-December 1984

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The Institute of Physics (UK) announces a new bimonthly journal CLASSICAL AND QUANTUM GRAVITY covering all branches of the theory of space-time and gravitation and including, in particular, the theory and implications of quantum gravity and geometrical aspects of classical and quantum field theory. During 1984 it will be distributed free to all customers subscribing to JOURNAL OF PHYSICS A: MATHEMATICAL AND GENERAL, which will no longer carry papers on gravitation and relativity. The new journal may also be purchased separately and is available at reduced rates to IAMP members, as announced elsewhere in this News Bulletin. Further details of CLASSICAL AND QUANTUM GRAVITY will shortly be mailed to all members.

La rencontre consistera principalement en de nombreuses communications courtes, de 5 à 10 minutes selon le nombre de communications proposées, destinées à donner à chacun une idée de ce qui se fait actuellement dans les divers domaines, ainsi qu'en quatre revues sur des sujets reliés à la physique statistiques :

- M. H. ERNST  
(Inst. Phys. Théor., Utrecht) : Exact solutions of non-linear kinetic equations of Boltzmann type.
- U. FRISCH  
(Observatoire de Nice) : Où en est la turbulence développée ?
- D. LEVESQUE  
(Phys. Théor., Orsay) : Liquides et solutions.
- J. PROST  
(Paul Pascal, Talence) : Nouvelles phases induites par frustration dans les cristaux liquides.

et en une table ronde sur les divers aspects des phases incommensurables avec R. Currat, P. Lederer, R. Pick, J. Villain ...

INFORMATION : Comme en 1983, une rencontre sur la physique des verres de spin est prévue les 23, 24 et 25 Janvier 1984, dans les locaux du CECAM, à Orsay.

Pour tous renseignements, contacter

Mme Francine Lefèvre  
Service de Physique Théorique  
CEN, Saclay  
91191 GIF-SUR-YVETTE Cedex  
(France)

INSCRIPTION ET RESERVATION

Rencontre de Physique Statistique

Madame Andalo

Centre de Physique Théorique  
Ecole Polytechnique

91128 Palaiseau - France

PREPRINTS (Received in Princeton)

December, 1983

R. Arshansky and L.P. Horwitz (Dept. of Phys. and Astro., Tel Aviv Univ., Tel Aviv 69978, Israel) TWO BODY RELATIVISTIC SCATTERING WITH AN  $O(1,1)$  SYMMETRIC SQUARE WELL POTENTIAL

R.R. Aldinger, A. Bohm, P. Kielanowski, M. Loewe, P. Magnollay, N. Mukunda (Center for Part. Theory, Univ. of Texas, Austin, TX 78712 USA)  
W. Drechsler (Max Planck Inst. für Phys. und Astro., München, FR Germany)  
S.R. Komy (Dept. of Phys., Univ. of Colorado, Boulder, CO 80302 USA)  
THE RELATIVISTIC ROTATOR I. QUANTUM OBSERVABLES AND CONSTRAINED HAMILTONIAN MECHANICS

A. Bohm, M. Loewe (address as above) L.C. Biedenharn (Dept. of Phys., Duke Univ., Durham, NC 27706 USA) and H. van Dam (Dept. of Phys., Univ. of North Carolina, Chapel Hill, NC 27514 USA) THE RELATIVISTIC ROTATOR II. THE SIMPLEST REPRESENTATION SPACES

R.R. Aldinger, A. Bohm, P. Kielanowski, M. Loewe, and P. Moylan (address as above) THE RELATIVISTIC ROTATOR III. CONTRACTION LIMITS AND EXPERIMENTAL JUSTIFICATION

C.M. Bender (Dept. of Phys., Washington, Univ., St. Louis, MO 63130 USA)  
K.A. Milton (Dept. of Phys., Oklahoma State Univ., Stillwater, OK 74078 USA)  
and D.H. Sharp (Theor. Div. Los Alamos Nat'l. Lab., Los Alamos, NM 87545 USA)  
CONSISTENT FORMULATION OF FERMIONS ON A MINKOWSKI LATTICE

J. Dimock (Dept. of Math., SUNY, Buffalo, NY 14214 USA) SCATTERING FOR THE WAVE EQUATION ON THE SCHWARZSCHILD METRIC

P. Federbush (Dept. of Math., Univ. of Michigan, Ann Arbor, MI 48104 USA)  
SURFACE EFFECTS IN DEBYE SCREENING, A MODEL EXAMPLE, Part I

G.A. Goldin, (Dept. of Math. Sci., N. Illinois Univ., DeKalb, IL 60115 USA)  
R. Menikoff and D.H. Sharp (Theor. Div., Los Alamos Nat'l. Lab. Los Alamos NM 87545 USA) DIFFEOMORPHISM GROUPS, GAUGE GROUPS AND QUANTUM THEORY

M.L. Lapidus (Dept. of Math, Univ. of S. California, Los Angeles, CA 90089-1113 USA) PRODUCT FORMULA, IMAGINARY RESOLVENTS AND MODIFIED FEYNMAN INTEGRAL

E. Lieb (Dept. of Physics, Princeton Univ., Princeton, NJ 08544 USA)  
ON CHARACTERISTIC EXPONENTS IN TURBULENCE Commun. Math. Phys. (in press)  
THE SIGNIFICANCE OF THE SCHRÖDINGER EQUATION FOR ATOMS AND MOLECULES AND STARS

A BOUND ON THE MAXIMUM IONIZATION OF ATOMS AND MOLECULES  
ATOMIC AND MOLECULAR IONIZATION

(with W. Thirring) GRAVITATIONAL COLLAPSE IN QUANTUM MECHANICS WITH RELATIVISTIC KINETIC ENERGY

- R.G. Newton (Dept. of Physics, Indiana Univ., Bloomington, IN 47405 USA)  
THE MARCHENKO AND GEL'FAND-LEVITAN METHODS IN THE INVERSE SCATTERING  
PROBLEM IN ONE AND THREE DIMENSIONS
- Z. Oziewicz (Inst. of Theor. Phys., Univ. of Wroclaw, ul. Cybulskiego 36,  
Poland) THE MEANING OF THE LAGRANGIAN ON SANTILLI'S LIE-ADMISSIBLE  
TREATMENT OF NON-LOCAL AND NON-POTENTIAL INTERACTIONS
- V. Aldaya, J. Kocik and Z. Oziewicz (address as above)  
TOWARDS SANTILLI HADRONIC MECHANICS: ON POLARIZATION
- W. Gruhn and Z. Oziewicz (address as above)  
ON JACOBI'S THEOREM
- J. Kocik (Address as above)  
NEWTONIAN VERSUS LAGRANGIAN MECHANICS
- G. Sobczyk (address as above)  
VECTOR ANALYSIS OF SPECIAL RELATIVITY
- A.G. Ramm (Dept. of Math., Kansas State Univ., Manhattan, KS 66506 USA)  
CONVERGENCE OF THE T-MATRIX APPROACH IN SCATTERING THEORY (with  
G. Kirstensson and S. Ström)  
INVERSE SCATTERING FOR GEOPHYSICAL PROBLEMS  
AN INVERSION FORMULA IN SCATTERING THEORY  
INVERSE DIFFRACTION PROBLEM  
ANALYTIC THEORY OF RANDOM FIELDS ESTIMATION AND FILTERING  
ON A PROPERTY OF THE SET OF RADIATION PATTERNS  
SCATTERING BY A PENETRABLE BODY  
ON INVERSE DIFFRACTION PROBLEM  
REPRESENTATIONS OF SOLUTIONS TO HELMHOLTZ'S EQUATION  
DESCRIPTION OF THE DEGREE OF NONUNIQUENESS IN INVERSE SOURCE PROBLEM  
ESTIMATES OF THE DERIVATIVES OF RANDOM FUNCTIONS  
LIMIT OF THE SPECTRA OF THE INTERIOR NEUMANN PROBLEMS WHEN A SOLID  
DOMAIN SHRINKS TO A PLANE ONE  
WAVE SCATTERING BY SMALL BODIES  
REMARKS ABOUT INVERSE DIFFRACTION PROBLEM  
A UNIQUENESS THEOREM IN SCATTERING THEORY
- M.B. Ruskai (Bunting Institute, 10 Garden Street, Radcliffe College, Cambridge,  
MA 02138) BINDING LIMIT IN THE HARTREE APPROXIMATION (with F.H. Stillinger  
Bell Laboratories, Murray Hill, N.J. 07974)  
COMMENT ON DENSITY FUNCTIONAL CALCULATIONS
- F.E. Schroeck, Jr. (Dept. of Math., Florida Atlantic University, Boca Raton,  
FL 33431 USA) ON THE NON-OCCURRENCE OF TWO PARADOXES IN THE MEASUREMENT  
SCHEME OF STOCHASTIC QUANTUM MECHANICS  
COMPATIBLE STOCHASTIC OBSERVABLES THAT DO NOT COMMUTE  
THE DEQUANTIZATION PROGRAMME FOR STOCHASTIC QUANTUM MECHANICS
- P.A. Vuillermot (Dept. of Math., Univ. of Texas, Arlington, TX 76019 USA)  
ON A CLASS OF STRONGLY NONLINEAR DIRICHLET BOUNDARY-VALUE PROBLEMS:  
BEYOND POHOZAEV'S RESULTS  
A CLASS OF ELLIPTIC PARTIAL DIFFERENTIAL EQUATIONS WITH EXPONENTIAL  
NONLINEARITIES

Preprints received in Tokyo

Y. Tsutsumi and K. Yajima, Dept. Pure & Appl. Sci. Univ. Tokyo,  
Komaba, Meguro-ku, Tokyo, 153 Japan  
THE ASYMPTOTIC BEHAVIOR OF NONLINEAR SCHRÖDINGER EQUATIONS

K. Yajima, Dept. Pure & Appl. Sci. Univ. Tokyo, Komaba, Meguro-ku,  
Tokyo, 153 Japan  
THE SURFBOARD SCHRÖDINGER EQUATIONS



PREPRINTS (received in Bielefeld)

P.C.Aichelburg and F.Embacher, Institut für Theoretische Physik, Univ.Wien  
A SCHWARZSCHILD SUPERBOOST

P.C.Aichelburg, Univ.Wien, and R.Güven, TOBITAK Research Institute for Basic  
Sciences, P.O.B. 74, Gebze, Kocaeli, Turkey  
NON-GAUGE SPIN-3/2 FIELDS FROM SUPERCOVARIANTLY CONSTANT SPINORS<sup>+</sup>

S.Albeverio, Mathem.Inst. Ruhr-Univ. 4630 Bochum F.R.G. and  
R.Høegh-Krohn, Univ.de Provence, Centre de Phys.Théor., CNRS, Marseille France  
SCHRÖDINGER OPERATORS WITH POINT INTERACTIONS AND SHORT RANGE EXPANSIONS

V.Aldaya, J.Kocik and Zbigniew Oziewicz, Instytut Fizyki Teoretycznej  
Uniwersytetu Wrocławskiego, Poland  
TOWARDS SANTILLI HADRONIC MECHANICS: ON POLARIZATION

J.P.Antoine, Inst.de Phys.Théor., Université Catholique de Louvain  
B-1348 Louvain-la-Neuve (Belgium)  
G.Epifanio and C.Trapani, Istituto di Fisica dell'Università  
di Palermo, I-90123 Palermo (Italy)  
COMPLETE SETS OF UNBOUNDED OBSERVABLES

J.P.Antoine, Univ.Cath.de Louvain and W.Karwowski, Univ.of Wrocław, Poland  
PARTIAL \*-ALGEBRAS OF CLOSED OPERATORS

M.T.Arede, Université d'Aix-Marseille II, Faculté des Sciences, de Luminy  
(permanent address: Faculdade de Engenharia (DEMEC), R.dos Bragas,  
4000 Porto, Portugal  
GEOMETRIE DU NOYAU DE LA CHALEUR SUR LES VARIETES

M.Asorey, J.F.Carineña and L.A.Ibort, Dept.de Fisica Teórica, Facultad de  
Ciencias, Universidad de Zaragoza, Zaragoza (Spain)  
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J.E.Avron, R.Seiler and B.Simon, Division of Physics, Mathematics and Astronomy,  
California Inst. of Technology, Pasadena, Ca. 91125 U.S.A.  
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B.Baumgartner, Institut für Theoretische Physik, Universität Wien  
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DEGREE OF IONIZATION

M.v.d.Berg, J.T.Lewis and J.V.Pulé, Dublin Inst.f.Adv.Stud., 10 Burlington Road,  
Dublin 4, Ireland  
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M.v.d.Berg and J.T.Lewis, Dublin Inst.f.Adv.Stud., Dublin 4, Ireland and  
P.de Smedt, Instituut voor Theor.Fys., Katholieke Universiteit Leuven,  
3030 Heverlee, Belgium  
CONDENSATION IN THE IMPERFECT BOSON GAS

A.Blobel and J.Messer, Sektion Physik, Theor.Phys., Univ.München, Theresienstr.37  
D-8000 München 2 F.R.G.  
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G.Braunss, Mathematisches Institut der Justus-Liebig-Univ., D-6300 Giessen,  
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HIERARCHIES OF OBSERVABLES (INTRINSIC STOCHASTICITY OF DYNAMICAL SYSTEMS)

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- J.Hietarinta, Department of Physical Sciences, University of Turku  
20500 Turku 50, Finland  
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-DRB 306, Los Angeles, CA 90089-1113 USA  
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Road, Dublin 4, Ireland  
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Sotto, I-06100-Perugia (Italy) and  
Luis Vazquez, Departamento de Física Teórica, Facultad de Ciencias  
Físicas, Universidad Complutense, Madrid-3 (Spain)  
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Norway)  
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10 Burlington Road, Dublin 4, Ireland  
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- L.Vazquez, Departamento de Fisica teorica, Universidad Complutense Madrid-Spain  
and Federico Ferrini, Istituto di Astronomia, Università Pisa-Italy  
BOSE-EINSTEIN PARTICLES WITH MASS

Correction of address:

Professor Ju.M.Berezanskii  
Institute of Mathematics  
Ukrainian Academy of Sciences  
ul. Repina 3  
252601 Kiev  
U.S.S.R.