ESI **The Erwin Schrödinger International Institute for Mathematical Physics**

Boltzmanngasse 9
A-1090 Wien, Austria

Scientific Report for the Year 2000

Vienna, ESI-Report 2000

March 1, 2001

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ESI–Report 2000

ERWIN SCHRÖDINGER INTERNATIONAL INSTITUTE OF MATHEMATICAL PHYSICS, SCIENTIFIC REPORT FOR THE YEAR 2000

ESI, Boltzmanngasse 9, A-1090 Wien, Austria

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General remarks

In the year 2000 ESI was host to 411 visitors. There were 157 preprints contributed to the preprint series (171 till beginning of February), some of them still belong to programs from 1999, 374 seminar talks or ESI-Colloquia were given outside of conferences, many more lectures were given in conferences at ESI.

ESI has spent AS 6.017 Mio for science which was supplemented by AS 1.260 Mio of foreign support; AS 5.715 Mio were spent for administrative costs including renting the premises and personnel cost.

From the preprint server `http://www.esi.ac.at/Preprints` 14356 preprints were downloaded during the year 2000 (January 1203, February 1309, March 976, April 1806, May 1301, June 1283, July 1470, August 1096, September 1094, October 1075, November 929, December 814) For comparison, in 1998 there were 7011 downloads, and in 1999 15845.

The following conferences were (co)organized by ESI:

(1) **The 20th Winter school on geometry and physics**, January 9–16, 2000, in Srni, a small village in the Bohemian forest, Czech republic.
(2) **Duality, String Theory, and M-theory**, April 3 - 12, 2000, workshop in the framework of the program with the same name. See in the program report for more information.
(3) **Wolfgang Pauli und die Physik des 20. Jahrhunderts,** Symposium aus Anlaß der Wiederkehr des 100. Geburtstags von Wolfgang Pauli jun., April 12-13.
(4) **Summer Session Seminar Sophus Lie**, May 26 and 27, 2000.
(5) **TMR-Network "The Physics of Quantum Information" Meeting**, September 3 - 6, 2000, meeting in the framework of the ESI program "Quantum Measurement and Information". See in the program report for more information.
(6) **Quantum [Un]speakables. Conference in commemoration of John S. Bell**, November 10.-14. 2000. Conference in the framework of the program "Quantum Measurement and Information". See in the program report for more information.
(7) **Quark Confinement and the Hadron Spectrum IV**, July 3 - 8, 2000, at the Austrian Academy of Sciences. International Conference in the framwork of the ESI program "Confinement". See in the program report for more information.

Winter School in Geometry and Physics

The traditional winter school in geometry and physics which takes places for one week each January since 1980 in a picturesque village in the Czech parts of the Bohemian mountains is a joint enterprise of the Czech society of mathematicians and physicists and ESI, from 1994 onwards. Usually there are proceedings, which are published as a supplement of the 'Rendiconti Matematici di Palermo'.

In this year, the 20th Winter school on Geometry and Physics took place in the week January 14–20, 2000. ESI has contributed AS 10.000.– The former conferences with ESI-participation are published in the proceedings volumes:

The proceedings of the Winter school 'Geometry and Physics', Srní, January 1994. Suppl. Rend. Circ. Mat. Palermo, II. Ser. **39** (1996), 9–148. **43** (1996), 9–228. **46** (1997), 9–176 **54** (1998), 11–124. **59** (2000), 7–228.

The proceedings of the 19th Winter school 'Geometry and Physics', Srní, January 9–15, 1999.
Suppl. Rend. Circ. Mat. Palermo, II. Ser. **63** (2000), 7–196

Contents:

Wolfgang Pauli und die Physik des 20. Jahrhunderts

Symposium aus Anlaß der Wiederkehr des 100. Geburtstags von Wolfgang Pauli jun., April 12-13. Gemeinsam organisiert durch: ESI. Universität Wien. Österreichische Physikalische Gesellschaft. Bundesministerium für Bildung, Wissenschaft und Kultur. Magistrat der Stadt Wien. Wissenschaftliches Komitee: H. Rauch, W. Thirring, J. Yngvason, A. Zeilinger. Organisationskomitee: W. Reiter, J. Yngvason, A. Zeilinger.

Programm:

Franz v. Feilitzsch, Mnchen: Dunkle Materie und die Zukunft des Universums. Abendvortrag als "Wiener Vorlesung" im Rathaus, Gr. Sitzungsal des Stadtsenats, mit einer Einfhrung von H. Pietschman.
Eröffnung und Begrüßung durch Rektor Georg Winckler. Einfhrende Worte von Jakob Yngvason und Anton Zeilinger
Charles P. Enz, Zürich: Facetten aus Paulis Leben und Werk.
Karl v. Meyenne, München: Die Entstehung des Ausschlieungsprinzips und seine frhen Anwendungen.
Francis Halzen, Univ. Wisconsin, Madison, USA: Neutrino Vision: From Quarks to the Universe.
Klaus Fredenhagen, Univ. Hamburg: PCT, Spin und Statistik: Physikalische Prinzipien und ihre Konsequenzen.
Valentin L. Telegdi, Zürich: Paulis groe beraschung - die Parittsverletzung.
Walter Thiring, Univ. Wien: Makroskopische Auswirkungen des Pauli-Prinzips.
Victor F. Weisskopf, Cambridge, USA: Erinnerungen eines Pauli-Assistenten.

Summer Session Seminar Sophus Lie

ESI hosted the Sophus Lie Seminar Summer Session on May 26 and 27, 2000. This Seminar meets twice a year in varying location in Germany, Austria, and Poland.

Programm:

A. Kirillov (Pennsylvania), Introduction to root systems.
K.H. Hofmann (Darmstadt), Arc components of compact groups are Borel sets, aren't they?
P.W. Michor (Vienna), Geometry of orbit spaces of Riemannian transformation groups.
A. Cap (Vienna), Curved analogs of the Bernstein-Gelfand-Gelfand resolution.
H. Biller (Darmstadt), Actions of Compact Groups on Rational Cohomology Manifolds.
D. Mittenhuber (Darmstadt), Controllability of solvable Lie algebras.
A. Kirillov (Pennsylvania), Family algebras.
W. Wojtynski (Warshaw), Groups of strings and their Lie theory.
M. Palese (Torino), Remarks on the Geometry of Baecklund Transformations.
N. Reshetikhin (Berkely), Applications of Lie Theory to Integrable Systems.
M. Wüstner (Darmstadt), A generalization of the Jordan decomposition.
P. Maier (Darmstadt), New results on Frobenius groups admitting planar Partitions.

List of participants: H. Biller (Darmstadt), B. Breckner (Vienna), A. Cap (Vienna), M. Dickten (Darmstadt), H. Führ (Sophia), H. Glöckner (Darmstadt), W. Herfort (Vienna), K.H. Hofmann (Darmstadt), A. Kirillov (Philadelphia), P. Maier (Darmstadt), P.W. Michor (Vienna), D. Mittenhuber (Darmstadt), M. Neuhauser (München), M. Palese (Torino), D. Poguntke (Bielefeld), N. Reshetikhin (Berkely), W.A.F. Ruppert (Vienna), A. Strasburger (Warschau), H. Welk (Leipzig), W. Wojtynski (Warschau), M. Wüstner (Darmstadt).

PROGRAMS IN 2000

Duality, String Theory, and M-theory

ESI contributed AS 996,250.–, foreign support was AS 155,000.– 28 ESI-preprints: [869], [872], [873], [884], [886], [898], [901], [903], [905], [907], [908], [909], [910], [911], [912], [913], [914], [915], [917], [924], [926], [927], [928], [931], [954], [955], [957], [958].

March 15 - July 15, 2000. Organized by Harald Grosse (Univ. Wien), Maximilian Kreuzer (TU Wien), Stefan Theisen (Univ. München).

The purpose of the program was to provide a meeting place for string theorists from around the world. This was indeed successfully accomplished. The participants came from 20 different countries (with many more nationalities).

For most of them this was their first visit to ESI. In this sense, our program gave international visibility to the institute. In particular we were able to attract some of the leading experts.

All participants enjoyed their stay at the ESI and many of them expressed their interest in returning. They very much appreciated the good atmosphere and again and again mentioned the competence and helpfulness of the administrative staff.

As a start-up of the program we organized a short workshop (April 3.–12.). The talks of the workshop and during the rest of the program covered all recent developments in string theory, both on the formal and on the 'phenomenological' side. Below we give a very brief summary

String vacua were until recently mainly discussed within the framework of closed string theories. Mirror symmetry has played a major rôle in these developments. Aspects of this were the subject of the seminars by Hosono and Skarke.

The realization that open and closed string theories are related via dualities has led to much activity in constructing string vacua within the type I theory. Here the incorporation of several background fields is possible. Recent results were presented in the seminars by Blumenhagen, Sagnotti, Stefanski.

Open string theories also provide new challenges to conformal field theory. Recent developments on boundary conformal field theory and their D-brane interpretation were presented by Schellekens, Schweigert, Walcher, Fuchs, Pawelczyk, Stanciu, Brunner. J. Distler gave two lectures on the K-theoretic description of D-branes.

The discussion of non-BPS D-branes was initiated by A. Sen. He presented some of his recent results of the fate of the tachyon in these backgrounds. While his discussion was within the recently resurrected framework of string-field theory, I. Sachs presented some results obtained from conformal field theory.

Another emphasis was on the AdS/CFT connection. Since the original proposal by Maldacena, many detailled calculations have been done to provide further evidence. Various aspects of this correspondence and some generalizations were presented by Petkou, Brandhuber, Arutyunov, Manvelyan, Polyakov, Skenderis and Lopez.

Parallel to our program there was also a ESI program on confinement. The particular interest of the Maldacena conjecture lies in the duality between a weakly coupled string theory and a strongly coupled gauge theory. As such it provides a theoretical framework for discussing questions such as confinement in QCD. Gomez and Sonnenschein summarized the status of these connections and also presented new results.

On the more phenomenologicasl side, the scenario with large extra dimensions, in particular withing the framework of Randal and Sundrum, is of great interest recently. Various aspects of this have been discussed (Rey, Louis, Förste).

One of the main activities in string theory and other areas of mathematical physics is non-commutative geometry. The fact that turning on extra background fields in open string theories necessary leads to non-commutativity of space-time, has now attracted the attention of string theorists. We had seminars on this topic both by string theorists and by participants who have approached this subject from other directions, such as conformal field theory, quantum field theory on non-commutative spaces or quantum groups (Wess, Wulkenhaar, Landsteiner, Recknagel, Jurko, Schupp, Chu). A. Cattaneo gave two lectures on his work with Felder, where

they present a 'physicsts' approach to the quantisation of poisson manifolds. As explained by Jurco, Schupp and Wess, this is the general setting of the so-called Seiberg-Witten map.

Other seminars covered black holes, matrix models, anomalies in string theory, duality in quantum field theories, aspects of conformal field theories, and many other aspects of string theory.

One of the highlights of the program was the Schrödinger lecture by J. Polchinski (May 2), which attracted a large audience. We were asked to organize a second public lecture as part of the city hall lecture series. Since time before the summer break was too short, we could, unfortunately, not find a suitable speaker.

To summarize, we believe that our ESI workshop succeeded in bringing together a large number of scientists with interest in string theory and related areas and in creating a stimulating atmosphere with much discussion. Many of the preprints which were submitted contain the results of collaborations which were started at the ESI.

In addition to the funds provided by the ESI, one of us (S.T.) contributed funds from the European Community (DM 20 000) to invite students and postdocs to the ESI and to cover the travel expenses of some of the visitors.

To conclude, we want to thank the ESI for giving us the opportunity to organize the program and to help in all possible ways to make it a successful one.

Harald Grosse, Maximilian Kreuzer, Stefan Theisen.

The following scientists were invited: Mohab Abou-Zeid, Ofer Aharony, Oleg Andreev, Gleb Arutyunov, Paolo Aschieri, Peter Bantáy, Ralph Blumenhagen, Andreas Brandhuber, Friedemann Brandt, Ilka Brunner, Alberto Cattaneo, Chong-Sun Chu, Jacques Distler , Harald Dorn, Sergey Fomin, Anamaria Font, Stefan Förste, Jürgen Fuchs, Beatriz Gato-Rivera, Cesar Gomez, Piotr Hajac, Sayed Fawad Hassan, Shinobu Hosono, Larisa Jonke, Branislav Jurčo, Topi Johannes Kärki, Elias Kiritsis, Sergei Kuzenko, Karl Landsteiner, Olaf Lechtenfeld, Wolfgang Lerche, Esperanza Lopez, Jan Louis, David Lowe, Dieter Lüst, John Madore, Ruben Manvelyan , Peter Mayr, Ruben Minasian, Thomas Mohaupt, Vitcheslav Mukhanov, David Olive, Ari Pankiewicz, Jacek Pawelczyk, Anastasios Petkou, Joseph Polchinski, Dimitri Polyakov, Norma Elisabeth Quiroz Perez, Eliezer Rabinovici, Voja Radovanović, Andreas Recknagel, Soo-Jong Rey, Markus Rosellen, Alexei Rosly, Ivo Sachs, Augusto Sagnotti, Emanuel Scheidegger, Norbertus Schellekens, Karl-Georg Schlesinger, Christof Schmidhuber, Peter Schupp, Christoph Schweigert, Adam Schwimmer, Claudio Scrucca, Ashoke Sen, Harald Skarke, Kostas Skenderis, Jacob Sonnenschein, Dmitri Sorokin, Bogdan Stefanski, Sonia Stanciu, Harold Steinacker, Stefan Theisen, Paul K. Townsend, Arkady Tseytlin, Johannes Walcher, Julius Wess.

Confinement

ESI contributed AS 290,000.–, no foreign support. 6 ESI-preprints: [822], [885], [945], [969], [984], [985].

May-June, 2000. Organized by: Wolfgang Lucha (Institut für Hochenergiephysik, Österreichische Akademie der Wissenschaften, Wolfgang.Lucha@oeaw.ac.at), André Martin (Theoretical Physics Division, CERN, andre.martin@cern.ch). Local Organizer: Franz F. Schöberl (Institut für Theoretische Physik, Universität Wien, franz.schoeberl@univie.ac.at.

The non-Abelian nature of quantum chromodynamics (QCD), the quantum field theory describing strong interactions, prevents solutions to this theory in closed form: at present, it is neither possible to prove colour confinement nor to understand hadron physics from first principles. Confinement of the colour degrees of freedom, in particular, represents a physical phenomenon far beyond reach of perturbation theory. Consequently, in QCD the usefulness of perturbative techniques for evaluation of some quantum field theory is limited to the description of the short-range interaction whereas it is unavoidable to resort to nonperturbative treatments or to develop new approaches and techniques in order to deal with long-range interactions. Specifically, this programme was aimed at the topics:

(1) exact bounds on energy eigenvalues;
(2) computational lattice quantum field theory.

Participants (name, date(s), topic / title of talk)

Marshall Baker, 28. 06. - 08. 07. 2000, Dual QCD, Effective String Theory, and Regge Trajectories (Fred Zachariasen Memorial Lecture),

Bernd Berg, 24. 06. - 01. 07. 2000, U(1) Lattice Gauge Theory and Random Matrix Theory,

Michael Creutz, 09. 05. - 19. 05. 2000, Remarks on Domain-Wall Fermions, Hans Günter Dosch, 13. 06. - 27. 06. 2000 , 16. 10. - 21. 10. 2000, Confinement and High-Energy Scattering,

Richard Hall, 11. 05. - 20. 05. 2000, Smooth Spectral Transition from Coulomb to Oscillator,

Urs Heller, 25. 06. - 01. 07. 2000, Chiral Symmetry on the Lattice: Recent Progress,

Christian B. Lang, 08. 05. - 12. 05. 2000 , 22. 05. - 26. 05. 2000, Lattice Dirac Operators, Chiral Symmetry and the Finite Temperature Transition in QCD,

Pieter Maris, 21. 06. - 09. 07. 2000, Mesons as Bound States of Confined Quarks,

Harald Markum,

Topology and Chirality in QCD; , Random Matrix Theory and Quantum Chaos: from Super Conductor to Chromodynamics,

André Martin, 07. 06. - 11. 06. 2000, Does the Pion Satisfy the Klein-Gordon or the Salpeter Equation?,

Khin Maung Maung, 04. 05. - 01. 06. 2000 , 02. 07. - 17. 07. 2000,

Claus Montonen, 07. 05. - 20. 05. 2000, Confinement in Supersymmetric Gauge Theories,

Martin G. Olsson ,

Hugo Reinhardt, 29. 06. - 07. 07. 2000,

Craig D. Roberts, 10. 06. - 25. 06. 2000 , 01. 07. - 07. 07. 2000, Dyson-Schwinger Equations and Continuum Strong QCD,

Shasaka M. Roy, 01. 05. - 05. 06. 2000, Maximally Realistic Causal Quantum Theory,

Virendra Singh, 10. 05. - 28. 05. 2000,

Peter Tandy, 20. 06. - 08. 07. 2000, Chiral Symmetry Restoration, Deconfinement, and Meson Correlations at Finite T,

Nils A. Törnqvist, 05. 05. - 19. 05. 2000, Trying to Understand the Lightest qq-bar Scalar Mesons, and Especially the Controversial sigma(400-1200),

Anthony Williams, 25. 06. - 08. 07. 2000, Gauge Fixing and Gluon and Quark Propagators on the Lattice,

Francisco José Yndurain, 14. 06. - 30. 06. 2000, 11. 02. - 24. 02. 2001, Heavy Quarkonium in QCD; The b Quark Mass From Spectroscopy; Properties of Bottomium from QCD,

For the year 2001, the following visits have been scheduled:

Richard L. Hall, Craig D. Roberts, Shasanka M. Roy, Virendra Singh, Francisco José Yndurain.

The publication of the proceedings of the totality of the lectures given within this programme is in preparation (publisher: World Scientific Publishing Co., Singapore).

As a complementary activity, the International Conference on

Quark Confinement and the Hadron Spectrum IV

has been held from July, 3 through July, 8, 2000 at the Austrian Academy of Sciences. Chair: Wolfgang Lucha.

Scientific Programme:

Opening, Welcome Addresses: Wolfgang Lucha [Chairman] Herbert Mang (Austrian Academy of Sciences).

Poul Henrik Damgaard (Niels Bohr Institute): The Infrared Limit of the Dirac Operator Spectrum: Exact Results.

Xue-Qian Li (Nankai University, Tianjin): Application of the Hypervirial Theorem.

Craig D. Roberts (Argonne National Lab): Contemporary Applications of Dyson-Schwinger Equations.

Lorenz von Smekal (Erlangen): What the Infrared Behaviour of QCD Green Functions Can Tell Us About Confinement in the Covariant Gauge.

Valentine I. Zakharov (MPI, Munich): Nonperturbative Effects at Short Distances in QCD.

Oliver Keith Baker (NuHEP, Hampton): Strangeness Production Using Electrons.

Marshall Baker (Seattle): Dual QCD, Effective String Theory, and Regge Trajectories (Fred Zachariasen Memorial Lecture).

Stephen R. Cotanch (North Carolina State University): Relativistic Many-Body Approach to Mesons, Hybrids and Glueballs.

Gilberto Colangelo (Zürich): Recent Progress in Chiral Perturbation Theory.

Herbert Neuberger (Rutgers University): Exact Chiral Symmetry with a Non-Perturbative Cutoff.

José Emilio Fernandes Tavares Ribeiro (Lisbon): The Role of Chiral Symmetry in Hadronic Scattering.

Anthony G. Williams (Adelaide): Lattice Studies of Confinement and Chiral Symmetry Breaking in a Covariant Gauge.

Stephan Olejnik (Bratislava): Center Vortices and Colour Confinement in Lattice QCD.

Hugo Reinhardt (Tübingen): Magnetic Monopoles, Center Vortices, and Topology of Continuum Yang-Mills Theory.

Pieter Maris (Kent State University): Continuum QCD and Light Mesons.

Federico Antinori (INFN, Padova) Recent Results from the CERN-SPS Heavy-Ion Programme

Thomas Devlin (Rutgers University): The Last Meson.

Hugh Philip Shanahan (Tsukuba): The Bc and Other Bottom Hadrons From Heavy Quark Lattice Field Theory.
Chris Michael (Liverpool): Hybrids, Glueballs, Exotic States from the Lattice.
Mikhail Shifman (Minnesota): Lessons for QCD from Supersymmetry.
Gunnar Bali (Glasgow): QCD Potentiology.
Antonio Vairo (Heidelberg): Potential NRQCD: An Effective Theory for Heavy Quarkonium.
Zoltan Ligeti (Fermilab): CKM Matrix Elements from B Decays.
Howard Georgi (Harvard): Concluding Talk.

Representation theory

ESI contributed AS 963,450.–, foreign support was AS 61,000.–. 19 ESI-preprints: [857], [878], [887], [888], [893], [899], [900], [906], [916], [920], [921], [922], [929], [939], [941], [964], [973], [976], [983].

April – Juli 2000, organized by Victor Kac and Alexandre Kirillov.

There has been a number of remarkable developments in representation theory in the past few years. The objective of the programm was to review these developments and to discuss the inter relations between them and future developments.

One of the most remarkable features of the recent progress in representation theory is a very strong influence of theoretical physics, especially conformal field theory and the theory of integrable models. This has been reflected in a series of talks by A. Kirillov Jr. on modular functors and topological field theories, by P. Etingof on dynamical quantum groups and of E. Frenkel on vertex algebras and algebraic curves, and of talks by V. Ginzburg on Calogero models and double affine Hecke algebras, by A. Givental on Frobenius manifolds, by A. Zabrodin on inverse potential problem, by C. Teleman on representations at critical level, by A. Okunkov on application of representation theory to combinatorics of algebraic curves, and several others.

A new development in representation theory with potential applications to the Standard Model was discussed in a talk by Rudakov on his work with Kac about representation of exceptional infinite - dimensional Lie superalgebras. A remarkable application of the K-functor for quiver varieties to the characters of affine quantum groups was reported by H. Nakajima, along with a related talk by E. Vasserot.

More traditional, but no less remarkable topics were discussed in a series of talks by A. N. Kirrilov, A. Fomin and A. Zelevinski on combinatorical aspects of representation theory and by A. Klyachko on application of the theory of symmetric spaces and random walks to the solution of the old Thompson problem on the distribution of eigenvalues, in a talk by A. Borodin and G. Olshanski on spherical representations of the infinte unitary group, and in a talk by M. Vergne on orbit method.

There has been on average two talks every Monday, Wednesday and Friday, leaving Tuesdays and Thursdays free for discussions and sightseeing. Almost all talks were concluded by a lovely discussion.

V. Kac, A. Kirillov

The following scientists were invited: Anton Alekseev, Vladimir Baranovsky, Philippe Biane, Alexey Borodin, Alessandro D'Andrea, Vladimir Dergachev , Alberto De Sole, Michel Duflo, Pavel Etingof, Alice Fialowski, Edward Frenkel, Victor Ginzburg, Alexander B. Giventhal, Victor Kac, Jerry Kazdan, Sergei Khoroshkin , Alexandre Kirillov, Alexander Kirillov Jr., Anatoli Kirillov, Alexander Klyachko, Dimitri Leites, Grigori Litvinov, Yavor Markov, Andrei Mironov, Alexander Molev, Aleksei Morozov, Hiraku Nakajima, Maxim Nazarov, Masatoshi Noumi, Andrei Okounkov, Grigory Olshanskiy, Eric Opdam, Alexander Panov, Irina Paramonova, Nicolai Reshetikhin , Natasha Rojkovskaia , Alexei Rudakov, Alexander Sergeev, Petr Somberg, Matthew Maciej Szczesny, Constantin Teleman, Eric Vasserot, Michéle Vergne, Anatoly Vershik, Minoru Wakimto, Anton Zabrodin, Andrei Zelevinsky.

Algebraic Groups, Invariant Theory, and Applications

ESI contributed AS 889,000.–, foreign support was AS 5,000.–. 7 ESI-preprints: [938], [943], [946], [956], [966], [972], [978],

Organized by: B. Kostant, P. Michor, F. Pauer and V. Popov. August 1 – December 29, 2000.

The Program covered all topics according to its plan.

Many of the visitors of this program are leading experts in the subject and prominent scientists. Alltogether there were delivered 88 talks. Practically every week there were at least three 90 minutes talks, usually on Monday, Wednesday and Friday. In August–September there were two 90-minutes talks every Monday, Wednesday and Friday. The participants of the Program submitted 7 papers to the ESI preprint series.

The following major trends and topics were covered by the Program.

— Theory of embeddings of algebraic homogeneous spaces. Varieties of complexity 0 and 1.
— Spherical varieties: classification, algebro-geometric properties and combinatorial invariants. Wonderful varieties: properties and classification for type A. Affine smooth spherical varieties, Delzant conjecture.
— Explicit models of wonderful compactifications of classical groups: linear relations, hinges, exterior algebras and Berezin transformations.
— Spherical varieties and multiplicity free hamiltonian actions.
— Stability of actions.
— Affine embeddings with finitely many orbits.
— Symmetric varieties and groups with involutions.
— Hilbert's 14th problem and the related geometric problems.
— Algebraic differential operators. Invariant differential operators and multiplicity free actions. Applications to combinatorics.
— Abelian ideals in unipotent radicals of parabolis and the Bott–Borel–Weil theorem.
— Classical Invariant Theory: old and new (a survey). The symbolic method and constructive Invariant Theory. Classical Invariant Theory for covariants. Classical Invariant Theory for nonclassical groups: invariant algebras and an analogue of M. Artin's conjecture. "Nice" properties in Invariant Theory. A symbolic methodology for all semisimple groups via realizing coordinate ring of flag varieties inside that of Borel.
— Computational Invariant Theory.
— Homological properties of algebras of invariants.
— Group actions in physics: representations of groups and semigroups in rigged Hilbert spaces.
— Essential dimension of algebraic groups.
— Equivariant symplectic geometry. Invariant linear connections on homogeneous symplectic varieties.
— Weakly symmetric and commutative homogeneous spaces.
— Cohomology of braid and Artin's groups.
— Applications of algebraic group actions to combinatorics: $n!$-conjecture.
— Quiver varieties.
— Generic algebras: discriminants and quasiderivations.
— Algebraic quotients: theory of good quotients.
— Complex analytic supermanifolds and homogeneous spaces. Homogeneous vector bundles and supermanifolds associated with complex flag manifolds.
— Principal nilpotent pairs in simple Lie algebras.
— Normality of nilpotent varieties. Geometry of nilpotent cone in positive characteristic and the cotangent bundle of flag varieties
— Products of conjugacy classes in algebraic groups and the related topics.
— Semistable bundles on algebraic curves in positive characteristic and low hight representations.
— Moduli spaces of principal bundles over a smooth projective curve and the Luna strata of algebraic group actions.
— Steinberg modules, good filtrations, and invariants of symmetric algebras.
— Combinatorics of systems A_r and volumes of flow polytopes.
— Invariant theoretic methods in Jacobian problem and in the theory of mathematical instantons.
— Discrete groups generated by complex reflections: classification and properties.

— Spetses – objects whose Weyl group is a finite complex reflection groups.
— Schubert varieties: smooth points and the Peterson map; equivariant cohomology, torus actions and Springer fibers.
— Division algebras and rationality.
— Quantum Invariant Theory: nonstandard deformations of enveloping algebras of $\mathcal{U}(\mathfrak{so}(n))$, their structure, invariants and q-harmonic polynomials.
— Cayley mappings for algebraic groups.

V. Popov

The following scientists were invited: Ivan Arzhantsev, Andrzej Bialynicki-Birula, Arno Bohm, Abraham Broer, Romain Camus, James B. Carrell, Corrado De Concini, Alexandre Elashvili, Nikolai Gordeev, William J. Haboush, Sergei Igonin, Pavel Katsylo, Gregor Kemper, Anatoliy Klimyk, Vsevolod Kordonski, Bertram Kostant, Hanspeter Kraft, Shrawan Kumar, Jochen Kuttler, Dominique Luna , Gunter Malle, Vikram B. Mehta, Arkadi Onishachik, David J. Saltman, Yasmine Sanderson , Gerald Schwarz, Dimitri Shmelkin, Tonny Albert Springer, Elisabetta Strickland, Evgueni Tevelev, Dmitri Timashev, Michéle Vergne, Dayanand Verma, Ernest Vinberg, Nolan Wallach, Sujeewa Wickramasekara.

Quantum Measurement and Information

ESI contributed AS 990,000.–, foreign support was AS 200,000.–. 9 ESI-preprints: [904], [947], [949], [950], [962], [963], [977], [981], [988]. Organized by Anton Zeilinger (Wien), Arthur Eckert (Oxford), Peter Zoller (Innsbruck), Sept. - Dec. 2000.

Through the ESI programme which I coordinated some of the leading figures within the field of quantum information were given the possibility to come to Vienna. A certain problem was presented by the fact that this field is currently in an adiabatic phase of expansion, and the number of programmes and workshops being organised world-wide is so great that it is very difficult to win leading figures. This explains the fact that the co-organisers Artur Ekert and Peter Zoller were only able to be present in Vienna for either a very short time or not at all. Considering this difficulty it is noteworthy that some of the best international figures did indeed come. This was made easier by the organisation of the conference in commemoration of John Bell, to mark the 10th anniversary of his death, within the programme, which was clearly particularly attractive. During the Bell conference it was possible to bring many young physicists into personal contact with some of the leading figures in the field, particularly those participants coming from Eastern Europe for the first time. The fact that during this conference no registration fee was charged was seen as very positive by many of these young people, who otherwise would not have been able to attend. Among the scientific successes were the discussions of new ways of carrying out quantum purification and the characterisation of high-dimensional entangled states. As one of the participants commented, "now Vienna is definitely on the map".

Anton Zeilinger (translation L. Cox)

The first three days of this program were devoted to the **TMR-Network "The Physics of Quantum Information" Meeting**, September 3 - 6, 2000.

Michel Brune: Step by step multi particle entanglement in a cavity QED experiment
Ben Varcoe: Fock states Rabi oszillations; a building block for the observation of new phenomena in quantum optic
Nicolas Gisin: A useful coherent quantum measurement
Massimo Palma: Dynamic and geometric quantum computation with josephson qubits
Business Meting TMR-Network
Ferdinand Schmidt-Kaler: Quantum information procesing with Ca+-Ions
Paul Barton: Ground state coupling of ion strings
Giovanna Morigi: Sympathetic cooling and quantum logic with Indium-Magnesium ion chain
Karl Schulze: Continous source of cold atoms for quantum computation
Dik Bouwmeester: Error-fre optical quantum communication and stimulated entanglement
Jian-Wei Pan: Two- and four-photon entanglement purification with linear elements
Günther Mahler: Fundamental limits of control: a quantum aproach to second law
Peka Lathi: Covariant phase observables in quantum mechanics
Vlatko Vedral: Quantum Distinguishability and Information Procesing

Stig Stenholm: Quantum electronics in grovy structures

Within the framework of this Program "Quantum Measurement and Information", the following event took place in November 10 -14, 2000: **Quantum [Un]speakables. Conference in commemoration of John S. Bell**, who died 10 years ago. The conference aimed to cover all the scientific activities of John Bell.

Abner Shimony: Recollections and Reflections on Bell's Theorem
John Clauser: Early History of Bell's Theorem
Roman Jackiw: Descendants of the Chiral Anomaly
Andrew Whitaker: Education and Early Years
Jack Steinberger: Personal Recollections
Bernard d'Espagnat: My Interaction with John Bell
Antonino Zichichi: John Bell and the 10 Challenges of Subnuclear Physics
Michael Horne: Interactions with John Bell on the Nonlocality Problem
Gerard 't Hooft: Quantum Mechanics and Determinism at the Planck Scale
Stig Stenholm: Information and Meaning. How Physical are They?
Alain Aspect: Bell's Theorem: The Naive View of an Experimentalist
Reinhold Bertlmann: Magic Moments: A Collaboration with John Bell
Mary Bell: Reminiscences of John Bell
Helmut Rauch: Towards More Quantum Complete Neutron Experiments
Ed Fry: A Novel Definitive Test of Bell Inequalities; an Experimental Realisation of the EPR-Gedankenexperiment with Spin-One-Half-Nuclei
Anton Zeilinger: Bell's Theorem and Quantum Information
Eduardo de Rafael: From Vector Meson Dominance to Large-Nc QCD
Simon Kochen: Geometry and Quantum Mechanics
Jon Magne Leinaas: Thermal Excitations of Accelerated Electrons
Ramamurti Rajaraman: Fractional Charge
David Sutherland: Precursors of the Chiral Anomaly
Charles Bennett: Storage and Retrieval of Classical Information in Multipartite Quantum Systems
Berge Englert: Quantification and Characterisation of Entanglement
Hans Kleinpoppen: Coherence Effects and Ultrashort Time Correlations of Two-Photon Radiation of the Metastable State of Atomic Hydrogen
Franco Selleri: Theories Equivalent to Special Relativity
Gregor Weihs: Bell's Theorem for Space-Like Separation and GHZ
Nicolas Gisin: Test of Relativistic Quantum State Collapse with Moving Reference Frame
Ian Percival: Speakable and Unspeakable after John Bell
GianCarlo Ghirardi: John Bell and the Dynamical reduction Program
Artur Ekert: The Bell Theorem in Quantum Cryptography
Roger Penrose: Quantum State Reduction, Gravitation and Quanglement

The following scientists were invited: Paolo Aniello, David Marcus Appleby, Vladan Arsenijević, Alain Aspect, Almut Beige, Mary Bell, Charles Bennett, Rodolfo Bonifacio, Dagmar Bruss, Vladimir Buzek, William Case, Ignacio Cirac, John Clauser, Eduardo De Rafael, Edib Dobardžić, Shahar Dolev, Luming Duan , Miloslav Dušek, Artur Ekert, Alexandre Elashvili, Avshalom C. Elitzur, Berthold-Georg Englert, Bernard d'Espagnat, Ed Fry, Cristopher A. Fuchs, Giancarlo Ghirardi, Nicolas Gisin, Lov K. Grover, Guangcan Guo, Daniel Greenberger, Hanno Hammer, Fedor Herbut, Gerardus t'Hooft, Michael Horne, Michal Horodecki, Pawel Horodecki, Ryszard Horodecki, Zdenek Hradil, Roman W. Jackiw, Christian Jäkel, Richard Josza, Anders Karlsson, Erik Karlsson, Dagomir Kaszlikowski, Julia Kempe, Sergei Kilin, Hans Kleinpoppen, Ladislav Kocbach, Simon Kochen, Barbara Kraus, Gershon Kurizki, Pekka Lahti, Jan Ake Larsson, Walter E. Lawrence, Jon Magne Leinaas, Maciej Lewenstein, Chi-Kun Lin, Elena Loubenets, Stephen Lovesey, Gúnter Mahler, Johnjoe McFadden, Gerard Milburn, Jiannis Pachos, Nikola Paunković, Mladen Pavicic, Roger Penrose, Ian Percival, Itamar Pitowsky, Martin Plenio, Sandu Popescu, Slobodan Prvanović, Claudio Procesi, Jagdish Rai, Suranjana Rai, Ramamurti Rajaraman , Zinovy Reichstein, Terry Rudolph, Barry Sanders, Franco Selleri, Abner Shimony, Salvatore Solimeno, Stig Stenholm, Chang-Pu Sun, Kalle-Antti Suominen, David Sutherland, David Tannor, Paolo Tombesi, Constantino Tsallis, Tomáš Tyc, Lev Vaidman, Vlatko Vedral, Guifré Vidal, Mingsheng Zhan, Mário Ziman, Marek Zukowski.

CONTINUATION OF PROGRAMS FROM 1999 and earlier

Functional Analysis. Continuation of a program from 1999. Organized by James B. Cooper, Paul F.X. Müller, Michael Schmuckenschläger, and Charles Stegall. ESI contributed 131,000.–. 9 ESI-preprints: [823], [826], [845], [849], [862], [860], [861], [866], [952]. Alltogether, in both years: AS 1,021,000.– from ESI, foreign support AS 770,500.–, 43 ESI preprints.

The following scientists were invited: Franck Barthe, Philippe Biane, Miroslav Chlebik, Joe Diestel, Marian Fabian, Petr Holický, Bernd Kirchheim, Piotr Mankiewicz, Eva Matoušková, Vladimir Müller , Alain Pajor, Jan Pelant, Dénes Petz, Shlomo Reisner, Wilhelm Schlag, Thomas Schlumprecht, Carsten Schütt, Charles Stegall, Jay Barry Turett, Elisabeth Werner, Luděk Zajíček.

Nonequilibrium Statistical Mechanics. Continuation of a program in 1999, organized by by G. Gallavotti, H. Spohn, and H. A. Posch. ESI contributed AS 6,000.–, no foreign support. 2 ESI-preprints: [843], [844]. Alltogether AS 515,000.–, foreign support AS 21,000.–, 4 ESI-preprints.

Applications of Integrability. Continuation of a program in 1999. Organized by A. Alekseev, L. Faddeev, H. Grosse. ESI contributed AS 49,000.–, no foreign support. 5 ESI-preprints: [831], [832], [841], [842], [890]. Alltogether 32 preprints.

The following scientists were invited: Anton Alekseev, Lioudvig Faddeev, Yvette Kosmann-Schwarzbach, John Madore, Andreas Recknagel, Alexei Rosly, Karl-Georg Schlesinger, Christoph Schweigert, Thomas Strobl, Anton Zabrodin.

Complex Analysis. Continuation of a program in 1999, November 2000. ESI contributed AS 106,000.–, no foreign support. 12 ESI-preprints: [822], [830], [834], [836], [855], [877], [880], [932], [967], [970], [987], [991].

Alltogether, ESI contributed AS 671,000.–, foreign support was AS 1,000.–, 29 preprints.

This follow-up program was mainly devoted to the study of weakly pseudoconvex domains of finite type which were introduced in the attempt to generalize results and methods of the well understood case of strictly pseudoconvex domains. Important special topics in this connection are: boundary behavior of the Bergman and Szegö kernel, investigation of the corresponding $\bar{\partial}$ -Neumann problem, compactness of the $\bar{\partial}$-Neumann operator, analytic hypo-ellipticity of pseudo-differential operators, CR-functions and manifolds and pluripotential theory. Another theme was weighted Bergman kernels and quantization.

Participants: J. D'Angelo (University of Illinois, Urbana),M. Englis (Prague University), G. Francsics (Columbia University, New York), Siqi Fu (University of Wyoming), M. Kolar (Brno University), W. Knirsch (Humboldt Universität, Berlin), B. Lamel (Royal Institute of Technology, Stockholm), O. Lemmers (Amsterdam University), Ewa Ligocka (Warsaw University), J. McNeal (Ohio State University),M. Schlichenmaier (Universität Mannheim), R. Sigurdsson (University of Iceland),E. Straube (Texas A& M University), D. Tartakoff (University of Illinois, Chicago).

The participants gave interesting talks or survey lectures. They were all pleased by the inspiring atmosphere of the ESI and ensured us of having found new and important insights to their own problems with the help of other colleagues staying at ESI. Many problems which arose during the 1999 program on complex analysis were discussed again. We could obtain considerable success for some of these problems. We also tried to support colleagues from Eastern Europe and invited scientists from Poland and the Czech Republic.

Friedrich Haslinger and Harald Upmeier

Holonomy Groups in Differential Geometry. Continuation of a program in 1999. Organizers: Dmitri Alekseevsky, Krzysztof Galicki, and Claude LeBrun. No further money spent. ESI-preprints: [824], [827], [835], [839], [925]. Alltogether, ESI contributed AS 540,000.–, foreign support was AS 21,000.–, 15 preprints.

Number theory and Physics I. Convexity. Continuation of a program from 1998, organized by Peter M. Gruber. ESI contributed AS 17.000.–. No preprint. Alltogether, the ESI budget was AS 298.000,-, foreign support was AS 25.000,–, 1 preprint contributed: [637].

Number theory and Physics II. Quantum Field Theory and the Statistical Distribution of Prime Numbers. Continuation of a program from 1998, Organized by I. Todorov. No

money spent. 3 ESI-preprints: [828], [975], [986]. Alltogether, the ESI budget was AS 522.000, foreign support (mainly from the American Institute of Mathematics) was AS 240.000,–, 15 ESI-preprints, 1 conference proceeding `http://www.esi.ac.at/Procedings/riemannzeta98.html`

Quantization, generalized BRS cohomology and anomalies. Follow-up of a program from 1998. ESI contributed AS 7,000.–, foreign support was AS 54,000.– Organized by R.A. Bertlmann, M. Kreuzer, W. Kummer, A. Rebhan, M. Schweda. 8 ESI-preprints: [871], [879], [883], [894], [951], [961], [968], [982]. Alltogether, ESI budget was AS 853.000,–, foreign support was AS 171.000,–. 24 ESI-preprints.

Charged particle kinetics. Continuation of a program in 1998, organized by Christian Schmeiser and Peter Markowich. ESI contributed AS 298,000.–, foreign support AS 386,000.–. 2 ESI-preprints: [833], [859]. Alltogether, ESI contributed AS 605,000.–, foreign support was AS 856,000.–, 22 ESI-preprints.

The following scientists were invited: Anton Arnold, Claude Bardos, Poitr Biler, Yann Brenier, Carlo Cercignani, Patricio Felmer, Francois Golse, Alex Gottlieb, Myo Theim Gyi, Hailiang Li, Emmanuel Jabin, Enrique Lami Dozo, Horst Lange , Claude LeBris, Claudia Lederman, Nader Masmoudi, Tadeusz Nadzieja, Nuykhat Nurlybayev, Shi Jin, Dmitri Petrina, René Pinnau, Mukhaya Rasulova, Gerhard Rein, José Francisco Rodrigues, Wilhelm Schlag, Maria Schonbek, Aleksandr Sinitsyn, Marin Soljacic, Giuseppe Toscani, Andreas Unterreiter, Shu Wang, Gershon Wolansky, Kaijun Zhang, Ping Zhang, Jorge Passamani Zubelli.

Spaces of geodesics and complex structures in general relativity and differential geometry. Continuation of a program from 1997. Organized by Lionel Mason, Pawel Nurowski, Helmuth Urbantke. Urbantke, Nurovsky, Mason No money spent. 2 ESI-preprints: [821], [863]. Alltogether 27 ESI-preprints.

Nonlinear theory of generalized functions. Continuation of a program from 1997. Organized by M. Oberguggenberger (Innsbruck), M. Kunzinger, M. Grosser. No money spent. 2 ESI-preprints: [829], [837], Alltogether 20 ESI-preprints. The proceedings of the original workshop in 1997 appeared:

Nonlinear Theory of Generalized Functions. Proceedings of the workshop: Nonlinear Theory of Nonlinear Functions. Erwin-Schrödinger-Institute, Vienna, October – December 1997. Michael Grosser, Günther Hörmann, Michael Kunzinger, and Michael Oberguggenberger, (Editors). Chapman & Hall/CRC, Boca Raton, London, etc., 1999. 383 pages.

Contents

Senior fellows and guests via Director's shares

Vladimir Popov. Senior fellow August 1 – December 27, 2000. Organizer of the program 'Algebraic groups, invartiant theory, and applications'. ESI cost: AS 201,077.90 plus AS 50,270.90 tax. ESI preprints see in the program description.

Yurii A. Neretin. Senior fellow September 1 - December 20, 2000. ESI cost: 161,253.– plus 37,564.– tax. ESI preprints: [852], [853], [889], [971], [974].

Guests of Walter Thirring. ESI contributed AS 132,000.–, no foreign support. 6 ESI-preprints: [825], [843], [864], [944], [953], [979]. The following scientists were invited: Nevena Petrova Ilieva-Litova, Dmitri Petrina.

Guests of Jakob Yngvason. ESI contributed AS 207,500.–, foreign support was AS 45,500.– 21 ESI-preprints: [838], [847], [848], [854], [856], [858], [867], [868], [876], [882], [892], [896], [897], [934], [940], [948], [951], [959], [960], [965], [990].

The following scientists were invited: Christoph Adam, Hellmut Baumgärtel, Piotr Bizoń, Hans-Jürgen Borchers, Soren Fournais, Klaus Fredenhagen, Hendrik Grundling, Francis Halzen, Kristinn Johnsen, Elliott Lieb, John Madore, Dmitri Petrina, Bert Schroer, Dmitri Vassilevich.

Guests of Klaus Schmidt. ESI contributed AS 104,000.–, foreign support was AS 399,000.– 9 ESI-preprints: [840], [846], [850], [857], [870], [895], [899], [935], [936]. The following scientists were invited: Rajendra Bhatia, Thomas Cusick, David E. Evans, Krzysztof Fraczek, Rajinder Hans-Gill, Oliver Jenkinson, Mariusz Lemańczyk, Hitoshi Nakada, Barry Sanders, Károly Simon, Selim Tuncel, Anatoly Vershik.

Guests of Peter Michor. ESI support was AS 351,000.–, foreign support was AS 8,000.–. 15 ESI-preprints: [824], [827], [842], [874], [881], [891], [902], [918], [919], [923], [930], [933], [942], [980], [982].

The following scientists were invited: Dmitri Alexeevski, Franz W. Kamber, Alexander Klyachko, Mark V. Losik, Shahn Majid, Gerard Misiolek, Niall O'Murchadha, Arkadi Onishachik, Dénes Petz, Vladimir L. Popov, Konstanze Rietsch, Alexei Rudakov, Cornelia Vizman, Shoji Yokura.

Guests of A. Cap. ESI contributed AS 37,000.–, foreign support was AS 4,000.–. 4 ESI-preprints: [851], [865], [937], [989]. The following scientists were invited: Jarolim Bureš, Rod A. Gover, Adam Harris, Gerd Schmalz, Jan Slovák, Vladimir Souček.

List of Preprints in 2000

We try to keep track of the bibliographical data of the published versions of the preprints – this is very incomplete and we are trying to update it. The most complete list can always be found on the ESI server `http://www.esi.ac.at/ESI-Preprints.html`.

Here we no longer give the full list of all preprints, not even the last 3 years any more, just the last year.

821. Maciej Dunajski, Lionel J. Mason, *Hyper–Kähler Hierarchies and their Twistor Theory* (2000), 23 pp..
822. André Unterberger, *Composition Formulas Associated with Symbolic Calculi and Applications* (2000), 51 pp..
823. Philippe Biane, Franz Lehner, *Computation of some Examples of Brown's Spectral Measure in Free Probability* (2000), 27 pp..
824. Paolo Piccinni, Izu Vaisman, *Foliations with Transversal Quaternionic Structures* (2000), 36 pp..
825. N. Ilieva, W. Thirring, *A Mixed Mean-Field/BCS Phase with an Energy Gap at High T_c* (2000), 6 pp..
826. F. Barthe, *Extremal Properties of Central Half-Spaces for Product Measures*, J. Funct. Anal., 21 pp. (to appear).
827. D.V. Alekseevsky, S. Marchiafava, *Hermitian and Kähler Submanifolds of a Quaternionic Kähler Manifold* (2000), 35 pp..
828. A. Cappelli, L. S. Georgiev, I. T. Todorov, *Coset Construction of Parafermionic Hall States* (2000), 11 pp..
829. Y.-G. Wang, M. Oberguggenberger, *Semilinear Geometric Optics for Generalized Solutions* (2000), 11 pp..
830. Udo Hagenbach, *Hardy-Toeplitz C^*-Algebras over Non-Pseudoconvex Domains* (2000), 41 pp..
831. A. Alekseev, V. Schomerus, T. Strobl, *Closed Constraint Algebras and Path Integrals for Loop Group Actions* (2000), 16 pp..
832. L. Dąbrowski, H. Grosse, P. M. Hajac, *Strong Connections and Chern-Connes Pairing in the Hopf-Galois Theory* (2000), 26 pp..
833. L. Erdős, J.P. Solovej, *The Kernel of Dirac Operators on $\mathbb{S}^3$ and $\mathbb{R}^3$* (2000), 51 pp..
834. L.A. Coburn, *On the Berezin-Toeplitz Calculus* (2000), 26 pp..
835. J. Sawon, *A New Weight System on Chord Diagrams via Hyperkähler Geometry* (2000), 16 pp..
836. F. Haslinger, *The Canonical Solution Operator to $\overline{\partial}$ Restricted to Radial Symmetric Bergman Spaces* (2000), 5 pp..
837. M. Nedeljkov, *Delta and Singular Delta Locus for One Dimensional Systems of Conservation Laws* (2000), 17 pp..
838. Elliot H. Lieb, Jacob Yngvason, *The Ground State Energy of a Dilute Two-dimensional Bose Gas* (2000), 16 pp..
839. L. Geatti, *Invariant Domains in the Complexification of a Non-Compact Riemannian Symmetric Space* (2000), 50 pp..
840. K. Frączek, *On Cocycles with Values in the Group $SU(2)$* (2000), 31 pp..
841. H. Grosse, K.-G. Schlesinger, *On Second Quantization of Quantum Groups* (2000), 27 pp..
842. M. Dubois-Violette, *Lectures on Graded Differential Algebras and Noncommutative Geometry* (2000), 71 pp..
843. H. A. Posch, W. Thirring, *The Classical Three-Body Problem – where is Abstract Mathematics, Physical Intuition, Computational Physics Most Powerful?* (2000), 26 pp..
844. Wm. G. Hoover, H. A. Posch, V. M. Castillo, C. G. Hoover,, *Computer Simulation of Irreversible Expansions via Molecular Dynamics, Smooth Particle Applied Mechanics, Eulerian, and Lagrangian Continuum Mechanics* (2000), 15 pp..
845. Michael Goldstein, Wilhelm Schlag, *Hölder Continuity of the Integrated Density of States for Quasiperiodic Schrödinger Equations and Averages of Shifts of Subharmonic Functions* (2000), 35 pp..
846. Oleg N. Ageev, *On the Spectrum of Cartesian Powers for the Classical Automorphisms* (2000), 7 pp..
847. Bernd Kuckert, *Localization Regions of Local Observables* (2000), 32 pp..
848. G. Nenciu, *On Asymptotic Perturbation Theory for Quantum Mechanics: Almost Invariant Subspaces and Gauge Invariant Magnetic Perturbation Theory* (2000), 36 pp..
849. Luigi Ambrosio, Bernd Kirchheim, *Currents in Metric Spaces* (2000), 65 pp..
850. Anatole Katok, Svetlana Katok, Klaus Schmidt, *Rigidity of Measurable Structure for Z^d–Actions by Automorphisms of a Torus* (2000), 30 pp..
851. Andreas Čap, Michael Eastwood, *Some Special Geometry in Dimension Six* (2000), 7 pp..
852. Yurii A. Neretin, *On Jordan Angles and Triangle Inequality in Grassmannian* (2000), 8 pp..
853. Yurii A. Neretin, *Plancherel Formula for Berezin Deformation of L^2 on Riemannian Symmetric Space* (2000), 64 pp..
854. Søren Fournais, *The Nodal Surface Of The Second Eigenfunction Of The Laplacian In R^D Can Be Closed* (2000), 15 pp..
855. Josip Globevnik, *On Growth of Holomorphic Embeddings into C^2* (2000), 10 pp..
856. Bert Schroer, *Particle Physics and QFT at the Turn of the Century: Old principles with new concepts* (2000), 55 pp..
857. Manfred Einsiedler, Douglas Lind, Richard Miles, Thomas Ward, *Expansive Subdynamics for Algebraic Z^d–Actions* (2000), 39 pp..
858. Elliott H. Lieb, Jakob Yngvason, *A Fresh Look at Entropy and the Second Law of Thermodynamics*, Physics Today, 14 pp. (to appear).
859. Ingenuin Gasser, Peter A. Markowich, Christian Schmeiser, David Levermore, *The Initial Time Layer Problem and the Quasineutral Limit in the Semiconductor Drift–Diffusion Model* (2000), 15 pp..

860. Nathanial P. Brown, Marie Choda, *Approximation Entropies in Crossed Products with an Application to Free Shifts* (2000), 19 pp..
861. Marie Choda, *Entropy on Crossed Products and Entropy on Free Products* (2000), 15 pp..
862. Itai Benjamini, Gideon Schechtman, *Upper Bounds on the Height Difference of the Gaussian Random Field and the Range of Random Graph Homomorphisms into Z* (2000), 7 pp..
863. Maciej Dunajski, Lionel J. Mason, Paul Tod, *Einstein–Weyl Geometry, the dKP Equation and Twistor Theory* (2000), 22 pp..
864. N. Ilieva, H. Narnhofer, W. Thirring, *Thermal Correlators of Anyons in Two Dimensions* (2000), 15 pp..
865. Andreas Čap, A. Rod Gover, *Tractor Bundles for Irreducible Parabolic Geometries* (2000), 25 pp..
866. Christoph Thiele, *A uniform Estimate for the Quartile Operator* (2000), 15 pp..
867. Maria Hoffmann-Ostenhof, Thomas Hoffmann-Ostenhof, Thomas Østergaard Sørensen, *Electron Wavefunctions and Densities for Atoms* (2000), 23 pp..
868. M. Sh. Birman, M. Solomyak, *On the Negative Discrete Spectrum of a Periodic Elliptic Operator in a Waveguide–Type Domain, Perturbed by a Decaying Potential* (2000), 47 pp..
869. L.R. Huiszoon , A.N. Schellekens, *Crosscaps, Boundaries and T–duality* (2000), 14 pp..
870. Klaus Schmidt, *Multi–Dimensional Symbolic Dynamical Systems* (2000), 12 pp..
871. G. Barnich, P.A. Grassi, *Gauge Dependence of Effective Action and Renormalization Group Functions in Effective Gauge Theories* (2000), 13 pp..
872. Thomas Mohaupt, *Black Holes in Supergravity and String Theory*, Class. Quantum Gravity **17** (2000), 3429–3482.
873. Joaquim Gomis , Karl Landsteiner , Esperanza Lopez, *Non–Relativistic Non–Commutative Field Theory and UV/IR Mixing* (2000), 13 pp..
874. Pavel Grozman, *On Bilinear Invariant Differential Operators Acting on Tensor Fields on the Symplectic Manifold* (2000), 5 pp..
875. Dimitry Leites , Irina Shchepochkina, *How to Quantize Antibracket* (2000), 19 pp..
876. S. Fournais, *On the Semiclassical Asymptotics of the Current and Magnetisation of a Non–Interacting Electron Gas at Zero Temperature in a Strong Constant Magnetic Field* (2000), 25 pp..
877. Klas Diederich, Gregor Herbort, *Quantitative Estimates for the Green Function and an Application to the Bergman Metric* (2000), 21 pp..
878. A. Panov, *Fields of Fractions of Quantum Solvable Algebras* (2000), 9 pp..
879. R.A. Bertlmann, E. Kohlprath, *Gravitational Anomalies in a Dispersive Approach*, Phys.Lett. B **480** (2000), 200ff.
880. A. Tumanov, *Extremal Discs and the Regularity of CR Mappings in Higher Codimension* (2000), 32 pp..
881. Dmitri Alekseevsky, Peter W. Michor, Wolfgang Ruppert, *Extensions of Lie Algebras* (2000), 9 pp..
882. Elliott H. Lieb, Robert Seiringer, Jakob Yngvason, *A Rigorous Derivation of the Gross-Pitaevskii Energy Functional for a Two–dimensional Bose Gas* (2000), 17 pp..
883. C. Adam, C. Ekstrand, T. Sýkora, *Covariant Schwinger Terms*, Phys. Rev. D **62** (2000), 105033.
884. Branislav Jurčo, Peter Schupp, Julius Wess, *Noncommutative Gauge Theory for Poisson Manifolds* (2000), 13 pp..
885. D. Ahrensmeier, R. Baier, M. Dirks, *Resonant Decay of Parity Odd Bubbles in Hot Hadronic Matter*, Phys. Lett. B **484** (2000), 58–63.
886. G. Arutyunov, S. Frolov, A.C. Petkou, *Operator Product Expansion of the Lowest Weight CPOs in N=4 SYM_4 at Strong Coupling* (2000), 48 pp..
887. A. Alekseev, A. Mironov, A. Morozov, *On B–Independence of RR Charges* (2000), 7 pp..
888. I.K. Kostov, I. Krichever, M. Mineev–Weinstein, P.B. Wiegmann, A. Zabrodin, *τ–Function for Analytic Curves* (2000), 13 pp..
889. Yurii A. Neretin, *Hua Type Integrals over Unitary Groups and over Projective Limits of Unitary Groups* (2000), 16 pp..
890. H. Grosse, J. Madore, H. Steinacker, *Field Theory on the q–Deformed Fuzzy Sphere I* (2000), 42 pp..
891. Lars Ernström, Shoji Yokura, *Bivariant Chern–Schwartz–MacPherson Classes with Values in Chow Groups* (2000), 21 pp..
892. Robert Seiringer, *On the Maximal Ionization of Atoms in Strong Magnetic Fields* (2000), 8 pp..
893. A. Mironov, A. Morozov, *On Renormalization Group in Abstract QFT* (2000), 7 pp..
894. W. Kummer, D.V. Vassilevich, *Renormalizability of the open string sigma model and emergence of D–branes*, J. High Energy Phys. **07(2000)012**.
895. Manfred Einsiedler, Selim Tuncel, *When does a Polynomial Ideal Contain a Positive Polynomial?* (2000), 4 pp..
896. Hendrik Grundling, *Host Algebras* (2000), 45 pp..
897. Hendrik Grundling, Fernando Lledó, *Local Quantum Constraints* (2000), 76 pp..
898. A. Brandhuber, K. Sfetsos, *An N=2 Gauge Theory and its Supergravity Dual* (2000), 15 pp..
899. A. M. Vershik, *Geometry and Dynamics on the Free Solvable Groups* (2000), 16 pp..
900. Alexander A. Klyachko, *Random Walks on Symmetric Spaces and Inequalities for Matrix Spectra* (2000), 20 pp..
901. Stefan Förste, Zygmunt Lalak, Stéphane Lavignac, Hans Peter Nilles, *The Cosmological Constant Problem from a Brane–World Perspective* (2000), 20 pp..
902. Shahn Majid, *Riemannian Geometry of Quantum Groups and Finite Groups with Nonuniversal Differentials* (2000), 53 pp..

903. Sonia Stanciu, *A Note on D–Branes in Group Manifolds: Flux Quantisation and D0–Charge* (2000), 12 pp..
904. Suranjana Rai, Jagdish Rai, *Group–Theoretical Structure of the Entangled States of N Identical Particles* (2000), 12 pp..
905. Carlo Angelantonj, Ralph Blumenhagen, Matthias R. Gaberdiel, *Asymmetric Orientifolds, Brane Supersymmetry Breaking and Non–BPS Branes* (2000), 38 pp..
906. Alice Fialowski, Michael Penkava, *Deformation Theory of Infinity Algebras* (2000), 30 pp..
907. Jürgen Fuchs, Christoph Schweigert, *Solitonic Sectors, α–Induction and Symmetry Breaking Boundaries* (2000), 13 pp..
908. R.R. Metsaev, A.A. Tseytlin, *Superstring Action in $AdS_5 \times S^5$: κ–Symmetry Light Cone Gauge* (2000), 30 pp..
909. Tatiana A. Ivanova, Olaf Lechtenfeld, *Hidden Symmetries of the Open N=2 String* (2000), 24 pp..
910. Daniel Kabat, Gilad Lifschytz, David A. Lowe, *Black Hole Thermodynamics from Calculations in Strongly–Coupled Gauge Theory* (2000), 16 pp..
911. L.A. Pando–Zayas, A.A. Tseytlin, *Conformal Sigma Models for a Class of $T^{p,q}$ Spaces* (2000), 9 pp..
912. Paolo Pasti, Dmitri Sorokin, Mario Tonin, *Superembeddings, Partial Supersymmetry Breaking and Superbranes* (2000), 31 pp..
913. O. Lechtenfeld, A. Sorin, *N=(2|2) Supersymmetric Toda Lattice Hierarchy in N=(2|2) Superspace* (2000), 12 pp..
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I. Choquet (Universität Wien): A relaxation principle for strong ionization in semiconductors, 2000 03 06
S. Jin (Atlanta): Regularization of the Burnett Equations via Relaxation, 2000 03 06
C. Lederman (Buenos Aires): Uniqueness and agreement of solution in a two phase free boundary problem from combustion, 2000 03 06
A. Unterreiter (Kaiserslautern): On macroscopic formulations of nonlinear Schrödinger Poisson systems close to equilibrium, 2000 03 06
S. Nishibata (Fukuoka): Asymptotic behavior of solutions to the model system of radiating gas with discontinuous initial data, 2000 03 06
Ali-Reza Assar (Universität Wien): Necklace Algebras II, 2000 03 14
Eighth **Erwin Schrödinger Lecture.** Walter Thirring (University of Vienna): Which features of the classical three-body problem are familiar, and which are foreign to our intuition ?, 2000 03 17
Jakob Yngvason (University of Vienna): Bosons in traps, 2000 03 17
Giovanni Gallavotti (University of Rome 1): Nonequilibrium statistical mechanics: recent attempts at a Boltzmannian approach, 2000 03 17
Elliott Lieb (Princeton University): Some thoughts on renomalization in QED, 2000 03 10
P. Bizon (University of Cracow): Threshold behavior for nonlinear wave equations, 2000 03 23
Ling Hsiao (Academia Sinica, Beijing): Mathematical analysis on Hydrodynamic models for Semiconductors, 2000 03 15
Ali-Rezar Assar (Universität Wien): Caley-Hamilton Algebras, 2000 03 16
Victor Kac (M I T): Infinite-dimensional simple groups of supersymmetries and the Standard model, 2000 03 20
Shinobu Hosono (University of Tokyo): Counting BPS states in 1/2 K 3, 2000 03 27
Sergei Kuzenko (Universität München): Supersymmetric nonlinear electrodynamics, 2000 03 28
R. Blumenhagen (HU-Berlin): Asymmetric orbifolds, noncommutative geometry and type I string vacua, 2000 04 03
T. Mohaupt (University of Halle): Black holes with R^2 interactions, 2000 04 03
D. Luest (HU-Berlin): States and Amplitudes in M-theory, 2000 04 03
C. Scrucca (University of Munich): Anomaly cancellation on D-branes and O-planes, 2000 04 03
S.-J. Rey (University of Seoul): Bulk Scalar Field, Goldberger-Wise Mechanism and Singularities - RG flows in Gravitationally Dressed AdS/CFT Correspondence, 2000 04 04
A. Brandhuber (CERN): Coulomb branch of gauge theories and AdS/CFT, 2000 04 04
J. Louis (University of Halle): RG-flows in gauged N=2 Supergravity, 2000 04 04
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A. Petkou (University of Kaiserslautern): Aspects of the conformal OPE in AdS/CFT correspondence and not onl, 2000 04 07
R. Minasian (Ecole Polytechnique, Paris): Nonlinear instantons from branes, 2000 04 06
P. Townsend (D. A. M. T. P. of Cambridge): Brany Q-lumps, 2000 04 10
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S. Stanciu (University of Utrecht): D-branes in group manifolds, 2000 04 10
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Evgueni Tevelev: Discriminants and quasiderivations of commutative algebras, 2000 08 30

Dmitri Timashev (Moscow State University): Embeddings of homogeneous spaces I: The Luna-Vust theory, 2000 08 28

Dmitri Timashev: Embeddings of homogeneous spaces II: Classification of G-varieties of complexity 1, 2000 08 30

Evgueni Tevelev (Moscow Independent University): Isotropic subspaces of multilinear forms, 2000 09 01

Dmitri Timashev (Moscow State University): Embeddings of homogenous spaces III: Cartier divisors and intersection theory, 2000 09 01

Vsevolod Kordonsky (Moscow Center Continous Mathematical Education): Upper bounds for essential dimension, 2000 09 04

Michel Brune (Departement de Physique de L'E.N.S.): Step by step multi particle entanglement in a cavity QED experiment, 2000 09 04

Ben Varcoe (Max Planck-Institut f. Quantenoptik, München): Fock states Rabe oszillations; a building block for the oberservation of new phenomena in quantum optic, 2000 09 04
Nicolas Gisin (University of Geneva): A useful coherent quantum measurement, 2000 09 04
Massimo Palma (Universitá di Palermo): Dynamic and geometric quantum computation with josephson qubits, 2000 09 04
Ferdinand Schmidt-Kaler (Leopold-Franzens Universität Innsbruck): Quantum information processing with Ca+-Ions, 2000 09 04
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Vlatko Vedral (University of Oxford): Thermal entanglement in 1D Heisenberg model, 2000 09 07
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Guan-Can Guo (University of Science and Technology of China): Efficient Scheme for Quantum Information Processing in Cavity-QED, 2000 09 08
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Yurii Neretin (Moscow State Institute of Electronics and Mathematics): Livshič characteristic function and inverse limits of unitary groups, 2000 09 13
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Martin Plenio & Vlatko Vedral (Imperial College London & University of Oxford): Informal discussion on multiparticle entangelement, 2000 09 11
Stig Stenholm (Royal Institut of Technology (KTH)): Informal discussion on The character of quantum information, 2000 09 12
Terry Rudolph (University of Toronto): Optimizing EPR Cheating Strategies, 2000 09 13
Mladen Pavicic (University of Zagreb): Quantum computer algebra, 2000 09 14
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T. Springer (Univ. Utrecht): Algebraic results related to the geometry of group compactifications, 1, 2000 10 09
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Bernd Kirchheim (Max-Planck Institut, Leipzig): Convexity notions in the Calculus of Variations and the two well problem, 2000 09 26
Petr Holický (Charles University, Prague): A remark on absolutely convergent Fourier series, 2000 09 26
Franck Barthe (Université de Marne-la-Vallée): Isoperimetric problems from probability, 2000 09 27
Alain Pajor (Université de Marne-la-Vallée): On the slicing problem, 2000 09 27
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Dave Morrison (Duke University): A new perspective on Calabi-Yau geometry, 2000 10 06
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Wolfram Sperber (ZIB Berlin): Math-Net in Germany: the regional concept, technical aspects, 2000 10 05
Martin Grötschel (ZIB Berlin und TU Berlin): Math-Net International: What do we have, what is to be done?, 2000 10 05
Wilfried Hodges (Queen Mary and Westfield College, London): Report on implications of the WIPO copyright treaty, 2000 10 05
Alf van der Poorten (Macquarie University): PDF: Mathematical Acrobatics, 2000 10 05
Nikolai Gordeev (Russian State Pedagogical University): Products of conjugacy classes in simple algebraic groups, and related topics, 1, 2000 10 18
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Carsten Schütt (Universität Kiel): Best and random approximation of convex bodies by polytopes, 2000 10 12
Abraham Broer (Université de Montréal): Normality of nilpotent varieties, 2000 10 17
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Vikram B. Mehta (Tata Institute of Fundamental Research): Semistable bundles on curves in char p 0 and low-height representations, 2000 11 06
Dominique Luna (University of Grenoble): Spherical varieties and multiplicity-free hamiltonian actions (a short introduction), 2000 11 03
Yuri Neretin (Moscow State Institute of Electronics and Mathematics): Linear relations, hinges, and boundaries of groups: Exterior algebras and Berezin transformations, 2000 11 08
Yuri Neretin: Linear relations, hinges, and boundaries of groups: Hausdorff quotient, hinges, and Semple - De Concini - Procesi boundary, 2000 11 10
Yuri Neretin: Linear relations, hinges, and boundaries of groups: Semigroups of hinges, 2000 11 13
Sergei Igonin (Yaroslavl State University): Homogeneous vector bundles and supermanifolds associated with complex flag manifolds, 2000 11 08
Jan Ake Larsson (Linhöping Universitet, Sweden): Detection efficiency in n-party Clauser-Horne inequalities, 2000 11 02
C.P. Sun (Chinese Academy of Science, Beijing): Factorisation approach and the decoherence of macroscopic objects, 2000 11 02

Yuri Neretin (Moscow State Institute of Electronics and Mathematics): Projective compactifications and sea urchin, 2000 11 14

Pavel Katsylo (Independent University of Moscow): Invariant theoretical methods in geometrical problems, 2000 11 20

Gerard Milburn (The University of Queensland): Linear Optics Quantum Computation, 2000 11 08

Miroslav Engliš (Academy of Sciences, Czech Republic): d-bar-Neumann problem in unbounded domains, 2000 11 07

Martin Schlichenmaier (Universität Mannheim): Berezin-Toeplitz Deformation quantization, 2000 11 09

Vikram B. Mehta (Tata Institute of Fundamental Research, Bombay): Steinberg modules, good filtrations, and invariants of symmetric algebras, 2000 11 13

Ewa Ligocka (Warsaw University): On the "uniformization" of Hartogs domains in C, 2000 11 14

Zdenek Hradil (Palacky University, Czech Republic): Incomplete and incompatible quantum measurement, 2000 11 09

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Romain Camus (Institut Fourier, France): Affine smooth sperical varieties, 2000 11 24

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Lev Vaidman (Tel-Aviv University): Nonlocality of Quantum Wave, 2000 11 15

Jason Semitecolos (University of Oxford): Algorithmic Description of Nature, 2000 11 15

Franco Selleri (Università di Bari): Quantum Mechanics versus local realism for neutral Kaon pairs, 2000 11 16

Simon Kochen (Princeton University): Quantum Mechanics for individual systems, 2000 11 16

Vladimir Buzek (Slovak Academy of Sciences): Beyond nonprogrammable quantum computers, 2000 11 15

Suranjana Rai (Raitech, India): Comparison of Entropies in the light of separability, 2000 11 16

Manfred Einsiedler (University of Vienna): Mixing of higher order for Ledrappier-type examples, 2000 11 27

Siqi Fu (University of Wyoming): Compactness of the d-bar - Neumann problem & first eigenvalues of a class of Schrödinger operators, 2000 11 16

Dayanand Verma (Institute of Fundamental Research, Mumbai, India): Using the easy highest weight ideas to construct Schur functors and develope (semi-) tableaux theory, 1, 2000 11 21

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Gunter Malle (Universität Kassel): Spetses - objects whose Weyl group is a complex reflection group, 2000 11 23

Daya-Nand Verma (Institute of Fundamental Research, Mumbai, India): A Symbolic Methodology for all Semisimple Groups via Realizing Coordinate Rings of Flag Varieties inside that of the Borel, 2000 12 05

Lov K. Grover (Bell Labs, Murray Hill, NY): Quantum Algorithms, 2000 12 12

Dmitri Petrina (Ukrainean Academy of Sciences, Kiev): Spectra and states of BCS Hamiltonian of theory of superconductivity Coincidence BCS and approximating Hamiltonians, 2000 11 29

Selim Tuncel (University of Washington): When does a submodule of $\mathbb{R}[x_1, ., x_k]^n$ contain a positive element? 2000 1 30

Claude LeBris (Ecole Nationale des Ponts et Chaussees, Paris): A mathematical approach to the solid state : basic remarks on the crystal problem and on the passage from quantum models to continuum mechanics, 2000 11 30

Vladimir Popov (Moscow State Technical University, Moscow): Discrete complex reflection groups, 2, 2000 12 01

Hanspeter Kraft (Universität Basel): Classical Invariant Theory: Old and Now, 2000 12 06

Hanspeter Kraft: The Symbolic Method and Constructive Invariant Theory, 2000 12 07

Jochen Kuttler (Universität Basel): Smooth points of Schubert varieties and the Peterson map, 2000 12 04

Ignacio Cirac (Univ. Innsbruck): Creation and Manipulation of Entangled States, 2000 12 04

Maciej Lewenstein (Univ. Hannover): News about Entanglement and Quantum Correlations, 2000 12 04

Avshalom Elitzur (Weizman Institute): Neither Guide-Wave nor Collapse: On Non contiguous Properties of the Wave Function Revealed by Delicate, 2000 12 05

Ryszard Horodecki (Univ. Gdansk): Bound Entanglement and Quantum Communication, 2000 12 05

Richard Josza (Univ. Bristol): Title to be announced, 2000 12 05

David Tannor (Weizman Instiute): Laser Cooling as a Paradigm for Controlling Decoherence: A Theory of Purity Increasing Transformations, 2000 12 06
Ladislav Kocbach (Univ. Berger): Restoring Entanglement in Atomic Collisions, 2000 12 08
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David Saltman (University of Texas): Division algebras and rationality, 1, 2000 12 08
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Dominique Luna (University of Grenoble): Spherical varieties of type A, 2000 12 14
James B. Carrell (University of British Columbia): Equivariant cohomology of varieties with a triangular action, 2000 12 07
William J. Haboush (University of Illinois): Obstructions of finiteness on the Luna strata of the space of moduli of principle bundles over a smooth projective curve, 2000 12 19
William J. Haboush (University of Illinois): Classical connections in principle fibre spaces, Tannaka categories and Higgs bundles, 2000 12 20
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G. Schneider (Univ. Bayreuth): The stochastic Landau equation as an amplitude equation, 2001 02 07
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G. Gentile (Univ. di Roma): The shape of the analyticity domain for the conjugating function of the standard map, 2001 02 08
L. Rondoni (Politecnico di Torino): Equivalence of nonequilibrium ensembles and axiom C structures in 2-dimensional fluid mechanics, 2001 02 08
A. Shirikyan (Herriot Watt University, Edinburgh): A version of the Ruelle-Perron-Frobenius (RPF) theorem and applications, 2001 02 08
Christian Maes (KU Leuven): Local fluctuation in the entropy poduction, 2001 02 08
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W.G. Hoover (Univ. of California): Quantum-thermostated hard disk, 2001 02 09
Claude Alain Pillet (Université de Marseille): "Natural" Non-Equilibrium Steady States for finite Quantum Systems, 2001 01 01
Walter Thirring (Univ. Wien): Gravitational collapse and Ergodicity in confinied gravitatioxal system: a discussion, 2001 02 09
Francisco José Yndurain (Universidad Autonoma de Madrid): Precision Determinations of alpha
Alex Gottlieb (San Fernando Research, California): Resampling from jackknife pseudovalues and the propagation of chaos, 2001 02 09
Luc Miller (Université de Paris): Geometric conditions for controllability and boundary Wigner measures, 2001 02 09
Alexis Vasseur (Université de Nice-Sophia-Antripolis): Classical and Quantum Transport in Random media, 2001 02 13
Carl Dettmann (University of Bristol): Chaos and Diffusion, 2001 02 12
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S. Tcheremchantsev (Universite de Orleans): Gerneralized fractal dimensions of probability measures: definitions and basic properties, 2001 02 15
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H. Posch (Univ. Wien): Lyopumovmodels, 2001 02 15
Markus Arndt (Univ. Wien): Quantum Interferences of Fullerenes: Perfect de Broglie Coherence of hot Molecules, 2001 02 15
Nicolas Burq (Université Paris-Sud Orsay): Smoothing effects for Schroedinger operators and resonances erators and resonances, 2001 02 14
Hailiang Li (SISSA, Trieste): t.b.a, 2001 02 14
Toshikazu Sunada (Tohoku University, Sendai): RWs applied to the geometry of crystal lattices, 2001 02 19
Davide Cassi (Università di Parma): Random walks and physical models on graphs - an introduction, 2001 02 19
Thomas Gilbert (Univ): Entropy production and fractals, 2001 02 20
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Robert van den Berg (Centrum voor Wiskunde en Informatica, Amsterdam): Hesitant coalescing RWs, 2001 02 20
Motoko Kotani (Tohoku University, Senai, Japan): A central limit theorem for magnetic transition operators on a crystal lattice, 2001 02 21
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Silke Rolles (Univ): Reinforced RWs, 2001 02 21
Michail I. Monastyrski (Institute for Theoretical and Experimental Physics, Moscow): Statistics of knots and RWs on Hecke lattices, 2001 02 22
Fabio Zucca (Universitá degli studi, Milano): Equidistribution of RWs on spheres, 2001 02 22
Smail Alili (Univ.): Discrete-time branching RW and the voter model, 2001 02 23
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Wolfgang Woess (Univ. Graz): Periodic oscillations of transition probabilities on the Sierpinski graph, 2001 02 23

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Abou-Zeid, Mohab, Humboldt Universität zu Berlin, Institut f. Physik, 04.02-04.09 KGT
Adam, Christoph, Universität Karlsruhe, Institut für Theoretische Physik, 09.19-09.24 YNG
Aharony, Ofer, Rutgers University, Dept. of Physics and Astronomy, 06.21-07.01 KGT
Aizenberg, Lev, Bar-Ilan University, Dept. of Mathematic, 04.10-04.17 HU
Alekseev, Anton, University of Uppsala, Th. Physics, 02.25-03.04 AFG, 04.28-05.13 KAK, 05.14-05.25 AFG
Alexeevski, Dmitri, Center "Sophus Lie", 01.01-01.24 SF 12.15-12.23 MI
Andreev, Oleg, Humboldt-Universität, 04.29-05.05 KGT
Aniello, Paolo, Universitá di Napoli, 11.26-11.29 ZEZ
Appleby, David Marcus, Queen Mary and Westfield College, Department of Physics, 09.04-09.10 ZEZ
Arecchi, F. Tito, University of Firenze, Physics Department, 10.17-10.22 PGS
Arnold, Anton, TU-Berlin MA 6-2, 10.05-10.14 SM,
Arsenijević, Vladan, Faculty of Physics, 11.06-11.19 ZEZ
Arutyunov, Gleb, Steklov Mathematical Institute, 04.03-04.15 KGT
Arzhantsev, Ivan, Moscow State University, Dept. of Algebra, 08.05-09.05 PPK
Aschieri, Paolo, L.M.U., 05.17-05.20 KGT 06.29-07.07 KGT
Aspect, Alain, Institut d'Optique - BP 147, 11.11-11.13 ZEZ
Baker, Marshall, University of Washington, Dept. of Physics, 06.29-07.08 LMS
Bantáy, Peter, Rolland Eötvös University, Institute for Theoretical Physics, 06.20-06.26 KGT, 07.04-07.12 KGT
Baranovsky, Vladimir, University of Chicago, 06.25-07.09 KAK
Bardos, Claude, University of Paris, 08.01-08.11 SM, 11.29-12.03 SM
Barthe, Franck, Université de Marne-la-Vallée, 09.21-09.28 COO
Baumgärtel, Hellmut, Universität Potsdam, 03.14-04.14 YNG
Beige, Almut, Max-Planck-Institut für Quantumoptik, 11.10-11.16 ZEZ
Bell, Mary, EX-Cern, 11.10-11.15 ZEZ
Bennett, Charles, IBM Research, 11.13-11.16 ZEZ
Berg, Bernd, Florida State University, Dept. of Physics, 06.25-07.01 LMS
Bhatia, Rajendra, Indian Statistical Institute, 06.12-06.17 SCH
Bialynicki-Birula, Andrzej, University of Warsaw, Institute of Mathematics, 09.12-10.09 PPK
Biane, Philippe, DMI, Ecole Normales Superieure, 05.30-06.09 KAK
Bičak, Jiri, Charles University, Dept. of Theoretical Physics, 1997.04 28-1997.05 02 BE

Biler, Poitr, University of Wroclaw, Mathematical Institute, 05.15-05.24 SM
Bizoń, Piotr, Jagiellonian University, Institute of Physics, 03.24-03.26 YNG
Blumenhagen, Ralph, Humboldt-Universität zu Berlin, Institut f. Physik, 03.26-04.08 KGT
Bohm, Arno, University of Texas, 08.14-08.16 PPK, 08.20-08.27 PPK
Bonifacio, Rodolfo, University of Milano, 10.18-10.20 ZEZ
Borchers, Hans-Jürgen, Universität Göttingen, Inst. für Theoretische Physik, 09.18-10.14 YNG
Borodin, Alexey, University of Pennsylvania, 07.02-07.31 KAK
Borwein, Jonathan, Dept. of Mathematics and Statistics, Simon Fraser University, 10.04-10.08 CEIC
Brandhuber, Andreas, CERN, Theory Division, 04.03-04.14 KGT
Brandt, Friedemann, Max-Planck-Institut, für Mathematik in den Naturwissenschaften, 06.05-06.11 KGT
Brenier, Yann, Université Paris 6, 08.02-08.10 SM, 12.02-12.09 SM
Broer, Abraham, Université de Montréal, DMS, 10.10-10.21 PPK
Brunner, Ilka, Rutgers University, Dept. of Physics, 05.30-06.10 KGT
Bruss, Dagmar, ITP, 09.05-09.16 ZEZ
Bureš, Jarolim, Charles University, Mathematical Institute, 08.28-09.01 CAP
Buzek, Vladimir, Slovak Academy of Sciences, Institute of Physics, 11.04-12.02 ZEZ
Camus, Romain, Institute Fourier, 11.19-12.03 PPK
Carrell, James B., University of British Columbia, 12.02-12.10 PPK
Carter, Brandon, Observatoire de Paris - Mendon, Relat. Astrophysics and Cosmology, 01.12-01.14 BEIG
Case, William, Grinnell College, 06.06-06.30 ZEZ
Cattaneo, Alberto, Universität Zürich, Math. Institute, 07.03-07.09 KGT
Cercignani, Carlo, Politecnico di Milano, 09.24-10.22 SM
Chlebik, Miroslav, Comenius University, Department of Mathematics, 09.19-09.27 COO
Chu, Chong-Sun, University of Neuchatel, Institute of Physics, 05.11-05.19 KGT
Cirac, Ignacio, Universität Innsbruck, Inst. f. Theoretische Physik, 12.02-12.10 ZEZ
Clauser, John, J.F. Clauser, 11.10-11.15 ZEZ
Creutz, Michael, Physics Department, Brookhaven National Laboratory, 05.10-05.19 LMS
Cusick, Thomas, State University of New York at Buffalo, Mathematics Department, 05.19-05.26 SCH
D'Andrea, Alessandro, Universita Di Roma - "La Sapienza", 07.02-07.15 KAK
D'Angelo, John P., University of Illinois, 11.13-11.18 HU
De Concini, Corrado, Università di Roma "La Sapienza", 09.05-09.23 PPK
De Rafael, Eduardo, CPT, CNRS, Luminy, 11.10-11.15 ZEZ
Dergachev, Vladimir, University of PA, Dept. of Mathematics, 05.31-07.01 KAK
De Sole, Alberto, MIT, 07.17-07 KAK
Diestel, Joe, University of Missouri, Department of Mathematics, 09.22-09.23 COO
Distler, Jacques, University of Texas at Austin, Physics Department, 05.22-06.04 KGT
Dobardžić, Edib, University of Belgrade, 11.14-11.27 ZEZ
Dolev, Shahar, Bar Ilan University, Unit for Interdisciplinary Studies, 12.02-12.08 ZEZ
Dorn, Harald, Humboldt Universität, Institut für Physik, 06.26-07.02 KGT
Dosch, Hans Günter, Universität Heidelberg, Theoretische Physik, 06.14-06.27 LMS, 10.15-10.20 LMS
Duan, Luming, Universitaet Innsbruck, Institut fuer Theoretische Physik 25-2, 09.02-09.10 ZEZ
Duflo, Michel, ENS, Dep. of Mathematics, 07.18-07.29 KAK
Dušek, Miloslav, Falacky univ, Department Optics, 11.27-12.09 ZEZ
Ekert, Artur, University of Oxford, CQC, Clarendon Laboratory, 11.12-11.15 ZEZ
Ekstrand, Christian, Royal Institute of Technology, KTH, 09.21-10.14 BK
El aidi, Mohammed, Laboratoire M.I.P., UFR MIG, 01.01-11.20 HOF
Elashvili, Alexandre, Academy Sciences, Institut of Mathematic, 09.14-09.28 PPK, 10.09-10.14 ZEZ
Elitzur, Avshalom C., Bar-Ilan Unviersity, Unit for Interdisciplinary Studies, 12.03-12.08 ZEZ
Englert, Berthold-Georg, TU Wien, 10.04-12.31 ZEZ
Engliš, Miroslav, Academy of Sciences, Mathematic Institute, 11.06-11.12 HU
d'Espagnat, Bernard, Academie des Sciences morales et politiques, Institute de France, 11.10-11.12 ZEZ
Etingof, Pavel, MIT and Columbia University, 07.02-07.14 KAK
Evans, David E., University of Wales, School of Mathematics, 04.14-04.29 SCH
Ewing, John, American Mathematical Avenue, 10.04-10.08 CEIC
Fabian, Marian, Mathematical Institute, Czech Academy of Sciences, 10.10-10.18 COO
Faddeev, Lioudvig, Russian Academy of Sciences, Steklow Mathematical Institute, 02.21-03.05 AFG
Felmer, Patricio, Universidad de Chile, 12.05-12.08 SM
Fialowski, Alice, Eotvos Lorand University, 06.04-07.02 KAK
Fomin, Sergey, University of Michigan, Department of Mathematics, 05.22-06.14 KGT
Font, Anamaria, Universidad Central de Venezuela, Departamento de Fisica, 04.10-04.22 KGT
Förste, Stefan, Universität Bonn, Physikalisches Institut, 05.29-06.11 KGT
Fournais, Soren, Århus University, Mathematic Institut, 05.11-05.24 YNG
Fraczek, Krzysztof, Nicholas Copernicus University, Faculty of Mathematics and Informatics, 01.01-08.31 SCH
Francsics, Gábor, Columbia University, Dep. of Math., 11.13-11.21 HU
Fredenhagen, Klaus, Universität Hamburg, II. Institut fuŕ Theoretische Physik, 04.12-04.14 YNG
Frenkel, Edward, University of California, Dept. of Mathematics, 07.10-07.26 KAK
Fry, Ed, Texas Adm University, Physics Department, 11.10-11.15 ZEZ

Fu, Siqi, University of Wyoming, Department of Mathematics, 11.15-11.20 FU
Fuchs, Cristopher A., Bell Labs, Lucent Technologies, 11.29-12.12 ZEZ
Fuchs, Jürgen, Karlstads Universität, 06.30-07.14 KGT
Gato-Rivera, Beatriz, CSIC (Spanish Research Council), Inst. Matematicas y Fisica Fund., 04.11-04.24 KGT
Ghirardi, Giancarlo, Department of Theoretical Physics, 11.10-11.17 ZEZ
Ginzburg, Victor, University of Chicago, Dept. of Mathematics, 07.02-07.31 KAK
Gisin, Nicolas, Geneva University, 11.11-11.14 ZEZ
Giventhal, Alexander B., University of California, 07.16-07.29 KAK
Golse, Francois, University Paris 7, 08.04-08.04 SM
Gomez, Cesar, Universidad Autonoma de Madrid, Instituto de Fisica, 04.04-04.13 KGT
Gordeev, Nikolai, Russian State Pedagogical Universty, 10.03-10.29 PPK
Gottlieb, Alex, University of Berkeley, 08.06-08.18 SM
Gover, Rod A., University of Auckland, Department of Mathematics, 07.01-07.15 CAP
Grover, Lov K., Bell Labs, Murray Hill, 12.10-12.13 ZEZ
Grötschel, Martin, Konrad-Zuse-Zentrum, 10.05-10.08 CEIC
Guo, Guangcan, University of Science and Technology of China, 09.04-09.18 ZEZ
Greenberger, Daniel, City College of New York, Department of Physics, 11.10-11.15 ZEZ
Grundling, Hendrik, University of New South Wales, Dept. Pure Mathematics, 04.21-06.30 YNG
Gyi, Myo Theim, Universität Wien, Institut für Mathematik, 10.10-12.31 SM, 01.01-06.30 SM
Haboush, William J., University of Illinois, Urbana, Mathematics, 12.04-12.31 PPK, 01.01-01.02 PPK
Li, Hailiang, SISSA, 05.08-05.22 SM, 10.17-10.30 SM, 12.07-12.21 SM
Hajac, Piotr, KMMF Warsaw University, 08.01-08.03 KGT
Hall, Richard, Concordia University, Dept. Mathematics and Statistics, 05.12-05.20 LMS
Halzen, Francis, University of Wisconsin, 04.10-04.14 YNG
Hammer, Hanno, The Weizmann Institute of Science, 11.02-11.16 ZEZ
Hans-Gill, Rajinder, Panjab University, Mathematics, 04.29-05.01 GRU, 05.02-05.28 SCH
Haran, Shai, Technion - Israel Institute of Technology, 1998.09 20-1998.10 03 TOD
Harris, Adam, University of Melbourne, School of Mathematics and Statistics, 12.04-12.10 CAP
Hassan, Sayed Fawad, Ecole Polytechnique, Palaisean, 05.18-05.31 KGT
Havliček, M., Tech. Univ. of Prague, Nuclear Sciences and Physical Ingeneering, 1993.05 03-1993.05 07 GRO
Heller, Urs, CSIT, Florida State University, 06.26-07.01 LMS
Henk, Martin, University of Magdeburg, Department of Mathematics IMO, 05.03-05.12 GRU, 05.24-05.28 GRU
Herbut, Fedor, Serbian Academy of Science and arts, 11.20-12.03 ZEZ
Hodges, Wilfrid, Queen Mary University of London, School of Mathematical Sciences, 10.05-10.08 CEIC
Holický, Petr, Charles University of Praha, Dept. Math. Analysis, 09.24-09.28 COO
t'Hooft, Gerardus, Spinoza Institute, 11.10-11.15 ZEZ
Horne, Michael, Stonehill College, 11.10-11.14 ZEZ
Horodecki, Michal, University of Gdańsk, Institute of Theoretical Physics and Astrophysics, 12.01-12.07 ZEZ
Horodecki, Pawel, Technical University of Gdańsk, 12.01-12.07 ZEZ
Horodecki, Ryszard, University of Gdańsk, Institute for Theoretical Physics, and Astrophysics, 12.01-12.07 ZEZ
Hosono, Shinobu, University of Tokyo, Graduate School of Mathematical Sciences, 03.16-03.28 KGT
Hradil, Zdenek, Palacky University, Department of Optics, 11.05-11.16 ZEZ
Igonin, Sergei, Yaroslavl State University, 10.13-11.09 PPK
Ilieva-Litova, Nevena Petrova, Bulgarian Academy of Sciences, Institute for Nuclear Research and Nuclear Energy, 08.22-12.31 THI, 2001.01 01-2001.06 30 THI
Jabin, Emmanuel, Ecole Normale Sepérieure, 08.01-08.07 SM
Jackiw, Roman W., MIT, Center for Theoretical Physics, 11.10-11.12 ZEZ
Jäkel, Christian, Universita di Roma, Dipartimento di Matematica, 10.09-10.21 ZEZ
Jenkinson, Oliver, School of Mathematican Sciences, Queen Mary and Westfield College, 04.14-08.30 SCH
Johnsen, Kristinn, Technical University of Denmark, Microelektronik Centret, 05.25-05.31 YNG
Jonke, Larisa, Rudjer Bošković Institute, Physics Division, 04.03-04.15 KGT
Josza, Richard, University of Bristol, Computer Science department, 12.05-12.08 ZEZ
Jurčo, Branislav, MPI für Mathematik, Bonn, 05.09-05.19 KGT
Kac, Victor, MIT, 06.17-07.31 KAK
Kärki, Topi Johannes, University of Swansea, 04.02-04.12 KGT
Kamber, Franz W., University of Ilinois, Department of Mathematics, 06.15-07.31 MI
Karlsson, Anders, Royal Inst. of Technology, KTH, Quantum Electronics & Quantum Optics, 11.11-11.19 ZEZ
Karlsson, Erik, Uppsala University, 10.17-10.22 ZEZ
Kaszlikowski, Dagomir, Uniwersytet Gdanski, Instytut Fizyki Teoretycznej 1, 12.12-12.21 ZEZ
Katsylo, Pavel, Independent University of Moscow, 10.31-11.27 PPK
Kazdan, Jerry, University of Pennsylvania, Dept. of Math., 06.03-06.30 KAK
Kempe, Julia, University of California, Department of Mathematics, 12.12-12.20 ZEZ
Kemper, Gregor, Universität Heidelberg, 10.02-10.14 PPK
Khoroshkin, Sergei, Institute of Theoretical, and Experimental Physics, 05.10-06.07 KAK
Kilin, Sergei, Institute of Pysics, NBAS, 09.18-10.15 ZEZ
Kirchheim, Bernd, Max-Planck Institut für, Mathematik in den Naturwissenschaften, 09.19-09.27 COO
Kirillov, Alexandre, State University of NY at Stony Brook, 05.26-07.31 KAK

Kirillov Jr., Alexander, State University of NY at Stony Brook, 06.18-07.15 KAK
Kirillov, Anatoli, Nagoya University, Japan, and, Steklov Math. Institute, 07.03-07.15 KAK
Kiritsis, Elias, Dept. University of Crete, 05.19-05.24 KGT, 05.27-05.28 KGT, 05.31-06.04 KGT
Kleinpoppen, Hans, Fritz-Haber-Institut der MPG, 11.10-11.15 ZEZ
Klimyk, Anatoliy, Bogolyubov Institute for Theoretical Physics, 11.27-12.25 PPK
Klyachko, Alexander, Bilkent University, 06.02-06.28 KAK, 2001.01 03-2001.01 31 MI
Knirsch, Wolfgang, Humbold Universität, Institut für Mathematik, 11.07-11.13 HU
Knop, Friedrich, Rutger University, Dept. of Mathematic, 08.06-08.20 PKK
Kocbach, Ladislav, Universitetet i Bergen, Fysik Institutt, 12.04-12.09 ZEZ
Kochen, Simon, Princeton University, 11.10-11.18 ZEZ
Kolar, Martin, Masaryk University, 11.15-11.19 HU
Kordonski, Vsevolod, Moscow Center Continous, Mathematical Education, 08.10-09.05 PPK
Kosmann-Schwarzbach, Yvette, Ecole Polytechnique, Centre de Mathematiques, 05.13-05.18 AFG
Kostant, Bertram, MIT, Dept. of Math., 08.11-09.10 PPK
Kraft, Hanspeter, Universität Basel, Mathematisches Institut, 11.27-12.10 PPK
Kraus, Barbara, Univ. Innsbruck, Inst. f. Theoretische Physik, 12.02-12.10 ZEZ
Kumar, Shrawan, University of North Carolina, Dept. of Mathematics, 08.09-08.19 PPK
Kurizki, Gershon, The Weizmann Institute of Science, 10.15-10.19 ZEZ
Kuttler, Jochen, Universität Basel, Mathematisches Institut, 11.27-12.17 PPK
Kuzenko, Sergei, Universität München, Mathematik, 03.17-03.30 KGT, 06.16-06.21 KGT, 07.06-07.08 KGT
Lahti, Pekka, University of Turku, 09.06-09.09 ZEZ
Lamel, Bernhard, KTH, Institut fuer Mathematik, 11.07-11.17 HU
Lami Dozo, Enrique, Univ. Libre de Bruxelles, Campus Paine, and Univ. de Buenos Aires, 10.08-10.13 SM
Landshoff, Peter, DAMTP, University of Cambridge, 01.09-01.13 BK
Landsteiner, Karl, CERN, TH Division, 04.03-04.14 KGT
Lang, Christian, Institut f. Theoretische Physik, Universität Graz, 05.09-05.12 LMS, 05.23-05.26 LMS
Lange, Horst, Universität Köln, Mathematische Institut, 09.11-09.17 SM
Larsson, Jan Ake, Linhöping Universitet, Matematisha institutionen, 10.29-11.05 ZEZ
Lawrence, Walter E., Dartmouth College, 04.13-06.15 ZEZ
LeBris, Claude, Ecole Nationale des Ponts et Chaussees, 11.28-12.06 SM
Lechtenfeld, Olaf, Universität Hannover, Institut für Theoretische Physik, 07.05-07.15 KGT
Lederman, Claudia, Universidad de Buenos Aires, Departamento de Mathematica, 03.04-03.13 SM
Leinaas, Jon Magne, University of Oslo, Department of physics, 11.10-11.17 ZEZ
Leites, Dimitri, Department of mathematics, Stockholm University, 04.16-04.29 KAK
Lemańczyk, Mariusz, Nicholas Copernicus Univ., Dept. of Math. Computer Science, 05.16-05.27 SCH
Lemmers, Franciscus, University of Amsterdam, Department of Mathematics, 11.10-11.18 HU
Lerche, Wolfgang, CERN, 07.09-07.13 KGT
Lewenstein, Maciej, Universität Hannover, Institut f. Theoretische Physik, 12.02-12.06 ZEZ
Lieb, Elliott, Princeton University, Department of Physics, Jadwin Hall, 03.08-03.11 YNG
Ligocka, Ewa, Warsaw University, Institute of Mathematics, 11.07-11.16 HU
Lin, Chi-Kun, National Cheng Kung University, Department of Mathematics, 12.10-12.22 ZEZ
Litvinov, Grigori, International Sophus Lie Center, Moscow division, 04.09-04.22 KAK
Lopez, Esperanza, CERN, Theoretical Physics Division, 04.03-04.14 KGT
Losik, Mark V., Saratov State University, Department of Mathematics, 10.23-12.23 MI
Loubenets, Elena, Technical University, Moscow State Institute of Electronics, Mathematics, 10.30-11.24 ZEZ
Louis, Jan, Martin Luther-Universität, Halle-Wittenberg, Fachbereich Physik, 03.28-04.07 KGT
Lovesey, Stephen, ISIS Facility, RAL, 10.18-10.20 ZEZ
Lowe, David, Brown University, Physics Department, 06.02-06.14 KGT
Lucchesi, Claudio, Université de Neuchatel, Institut de Physique, 1998.10 06-1998.10 12 BK
Lüst, Dieter, Humboldt Universität zu Berlin, 04.03-04.07 KGT
Luna, Dominique, University of Grenoble, Institut Fourier, 10.28-12.29 PPK
Mack, Gerhard, Universität Hamburg, II. Institut für Theoretische Physik, 1993.05 03-1993.05 26 GRO
Madore, John, Université de Paris Sud, Lab. de Physique Theorique et Hautes Energies, 07.03-07.09 KGT
Mahler, Gúnter, Universität Stuttgart, Institut für Theoretische Physik, 09.04-09.18 ZEZ
Majid, Shahn, School of Math. Science, Queen Mary and Westfield College, 06.04-06.19 MI, 08.11-08.24 MI
Malle, Gunter, Universität Kassel, FB Mathematik, 11.15-11.25 PPK
Mankiewicz, Piotr, Polish Academy of Sciences, Institute of Mathematics, 10.16-10.22 COO
Manvelyan, Ruben, Yerevan Physics Institute, 04.02-04.12 KGT
Maris, Pieter, Kent State University, 06.21-07.09 LMS
Markov, Yavor, University of North Carolina, 07.01-07.14 KAK
Masmoudi, Nader, Universitë de Paris-Dauphine, 07.30-08.12 SM
Martin, Andre, Cern, 06.08-06.11 LMS
Matoušková, Eva, Czech Acadamy of Sciences, 10.12-10.23 COO
Maung, Khin M., Department of Physics, Hampton University, 05.05-06.01 LMS, 07.03-07.17 LMS
Mayr, Peter, CERN, TH. Division, 07.10-07.16 KGT
McFadden, Johnjoe, University of Surrey, School of Biological Sciences, 11.24-11.26 ZEZ
McNeal, Jeffery D., Princeton University, Dept. of Mathematics, 11.13-11.18 HU

Mehta, Vikram B., Tata Institute of Fundamental Research, 10.27-11.23 PPK
Milburn, Gerard, The University of Queensland, 11.01-11.10 ZEZ
Minasian, Ruben, Ecole Polytechnique, CPhT, 04.04-04.21 KGT
Mironov, Andrei, ITEP, 05.06-06.06 KAK
Misiolek, Gerard, University of Notre Dame, Department of Mathematics, 11.24-12.09 MI
Mohaupt, Thomas, Universität Halle, Fachgruppe Theoretische Physik, 03.26-04.08 KGT
Molev, Alexander, University of Sydney, School of Mathematics and Statistics, 06.08-06.21 KAK
Montonen, Claus, Helsinki Institute of Physics, 05.08-05.20 LMS
Morija, Hajime, Tokyo Science University, 01.01-03.31 NAR, 09.12-12.31 NAR, 2001.01 01-2001.02 28 NAR
Morozov, Aleksei, Inst. Theor. and Exper. Physics, 05.06-06.06 KAK
Morrisson, David R., Duke University, Center for Geometry and Theoretical Physics, 10.05-10.08 CEIC
Müller, Vladimir, Mathematical Institute, Czech Academy of Sciences, 10.10-10.18 COO
Mukhanov, Vitcheslav, Universität München, Sektion Physik, 04.26-04.28 KGT
Nadzieja, Tadeusz, Technical University of Zielona Gora, 05.15-05.24 SM
Nakada, Hitoshi, Keio University, Dept. of Mathematics, 09.13-09.30 SCH
Nakajima, Hiraku, Kyoto University, Department of Mathematics, 07.09-07.21 KAK
Nazarov, Maxim, University of Yorl, Dept. of Math., 06.18-07.01 KAK
Neretin, Yurii A., Moscow State Institute of Electronics and Mathematics, 09.06-12.25 SF
Noumi, Masatoshi, Kobe University, Department of Mathematics, 07.05-07.15 KAK
Nurlybayev, Nuykhat, Institut of Mathematics, 06.09-06.20 SM
Jin, Shi, Giorgia Institute of Technology, School of Mathematics, 03.03-03.08 SM
Okounkov, Andrei, UC Berkeley, Evans Hall, 07.03-07.09 KAK, 07.16-07.22 KAK
Olive, David, University of Wales Swansea, 06.04-07.01 KGT
Olshanskiy, Grigory, Institute for Information, 07.02-07.22 KAK
Ó Murchadha, Niall, University College Cork, Physics Department, 08.02-08.06 BE, 08.07-08.21 MI
Onishachik, Arkadi, Yaroslavl University, 10.01-10.31 PPK, 11.02-11.30 MI
Opdam, Eric, University of Amsterdam, Karteweg de Vries institute for mathematics, 07.17-07.31 KAK
Pachos, Jiannis, Max Planck Institute for Quantumoptik, 11.10-11.14 ZEZ
Pajor, Alain, Université de Marne-la-Vallée, 09.21-09.28 COO
Pankiewicz, Ari, LMU München, Fakultäet der Physik, 05.09-05.19 KGT
Panov, Alexander, Samara State University, Mathematical Department, 04.04-04.28 KAK
Paramonova, Irina, Independent University of Moscow, 04.16-04.29 KAK
Paunković, Nikola, Institute of Physics, 09.02-09.21 ZEZ, 11.06-11.08 ZEZ, 11.26-12.05 ZEZ
Pavicic, Mladen, University of Zagreb, Abt. f. Math., 09.11-09.17 ZEZ, 11.08-11.19 ZEZ
Pawelczyk, Jacek, Institute of Theoretical Physics, 04.04-04.21 KGT, 05.04-05.25 KGT, 06.07-06.20 KGT
Pelant, Jan, Mathematical Institute, Czech Academy of Sciences, 10.10-10.18 COO
Penrose, Roger, University of Oxford, Mathematical Institute, 11.13-11.14 ZEZ
Percival, Ian, University of London, 11.10-11.17 ZEZ
Petkou, Anastasios, University of Kaiserslautern, Dept. of Physics, 04.03-04.12 KGT
Petrina, Dmitri, Ukraian Academy of Sciences, Institute of Mathematics, 05.23-05.31 THI, 11.22-12.02 YNG
Petz, Dénes, Technical University of Budapest,Mathematical Department, 12.05-12.08 MI 3000,-
Pinnau, René, TU Darmstadt, Fachbereich Mathematik, 11.16-11.18 SM
Pitowsky, Itamar, The Hebrew University, Department of Philosophy, 09.04-09.16 ZEZ
Plenio, Martin, Imperial College London, Optics Session, 09.04-09.12 ZEZ
Polchinski, Joseph, University of California, 04.30-05.03 KGT
Polyakov, Dimitri, The Abdus Salam ICTP, 04.08-04.22 KGT
Popescu, Sandu, Bristol University, 12.20-12.24 ZEZ
Popov, Vladimir L., Moscow State Technical University, MGIEM, Dept. of Mathematics, 08.05-12.31 SF
Prvanović, Slobodan, Institute of Physics, 09.02-09.21 ZEZ, 11.05-11.16 ZEZ
Procesi, Claudio, Universitá di Roma "La Sapienza", 09.03-09.16 ZEZ
Quiroz Perez, Norma Elisabeth, Ludwig-Maximilian-Universität, 06.19-07.07 KGT
Rabinovici, Eliezer, Hebrew University, Racah Institute of Physics, 06.07-06.12 KGT
Radovanović, Voja, Faculty of Physics, 06.06-06.19 KGT
Rai, Jagdish, Indian Institute of Technology, Department of Physics, 04.24-05.05 ZEZ, 10.17-11.03 ZEZ
Rai, Suranjana, Raitech, 04.23-05.05 ZEZ, 10.16-11.18 ZEZ
Rajaraman, Ramamurti, University, School of Physical Sciences, 11.10-11.15 ZEZ
Rasulova, Mukhaya, Institute of Nuclear Physics, Uzbekistan Academy of Science, 06.09-06.20 SM
Recknagel, Andreas, AEI Potsdam, 04.10-04.22 KGT
Reichstein, Zinovy, Oregon State University, 09.03-09.17 ZEZ
Rein, Gerhard, Universität München, Math. Inst., 10.19-10.20 SM, 12.07-12.16 SM, 2001.01 08-2001.01 21 MGM
Reinhardt, Hugo, Universität Tübingen, Inst. f. Theoret. Physik, 06.30-07.07 LMS
Reisner, Shlomo, University of Haifa, 10.09-10.18 COO
Reshetikhin, Nicolai, University of California, Department of Mathematics, 05.27-06.06 KAK
Rey, Soo-Jong, Seoul National University, School of Physics, 04.04-04.15 KGT
Rietsch, Konstanze, DPMMS, 06.04-06.19 MI, 08.11-08.24 MI
Roberts, Craig, Argonne National Laboaratory, Physics Division, 06.11-06.25 LMS, 07.02-07.07 LMS
Rodrigues, José Francisco, CMAF University of Lisboa, 12.07-12.10 SM

Rojkovskaia, Natasha, University of Pennsylvania, Math. Department, 07.02-07.31 KAK
Rosellen, Markus, Max-Planck-Institut für Mathematik, 07.01-07.12 KGT
Rosly, Alexei, Institute of Theoretical and, Experimental Physics (ITEP), 03.21-04.21 KGT
Roy, Shasanka Mohan, Tata Institute of Fundamental Research, 05.02-06.05 LMS
Rudakov, Alexei, Inst. doo. Matem. Faq, NTNU, Glos, 06.17-07.17 KAK, 12.06-12.27 MI
Rudolph, Terry, University of Toronto, 09.02-09.14 ZEZ
Sachs, Ivo, Ludwig Maximilian University, 06.22-07.03 KGT
Sagnotti, Augusto, Dipartimento Di Fisica, Universita Di Roma "Lor Vergata", 04.15-04.20 KGT
Saltman, David J., University of Texas, Dept. Mathematics, 12.01-12.31 PPK, 2001.01 01-2001.01 01 PPK
Sanders, Barry, Macquarie University, 09.04-09.10 ZEZ, 09.16-10.14 ZEZ
Sanderson, Yasmine, Rutgers University, 08.06-08.20 PPK
Schlag, Wilhelm, Princeton University, Dept. of Mathematics, 07.27-08.06 SM
Scheidegger, Emanuel, Ludwig-Maximilian-Universität, Sektion Theoretische Physik, 06.28-07.15 KGT
Schellekens, Norbertus, NIKHEF FOM, 04.10-04.24 KGT
Schlesinger, Karl-Georg, Universität Wuppertal, FB Mathematik, 04.04-04.17 KGT, 08.15-08.22 KGT
Schlumprecht, Thomas, Texas A & M University, Deptarture of Mathematics, 09.18-09.23 COO
Schlichenmaier, Martin, Universität Mannheim, Mathematik, 11.06-11.12 HU
Schmalz, Gerd, Universität Bonn, Mathematisches Institut, 09.11-09.15 CAP
Schmidhuber, Christof, CERN, TH Division, 07.10-07.15 KGT
Schonbek, Maria, University of California, 08.01-08.04 SM
Schroer, Bert, FU Berlin, Institut für Theor. Physik, 02.01-02.19 YNG
Schütt, Carsten, Universität Kiel, Mathematisches Seminar, 10.08-10.16 COO
Schupp, Peter, Universität München, Sektion Physik, 05.12-05.22 KGT
Schwarz, Gerald, Brandeis University, Dept. of Mathematics, 08.07-08.25 PPK
Schweigert, Christoph, LPTHE, 04.19-04.30 KGT
Schwimmer, Adam, Weizmann Institute, Physics Dept., 05.05-05.28 KGT, 07.09-07.15 KGT
Scrucca, Claudio, Ludwig Maximillian Universität, Inst. f. Theoretische Physik, 04.03-04.14 KGT
Selleri, Franco, Universitá di Bari, Dipart. di Fisica, 11.11-11.19 ZEZ
Sen, Ashoke, Mehta Research Institute, 06.21-07.04 KGT
Sergeev, Alexander, Balakovo Institutez Tecknic and Control, 04.04-04.29 KAK
Shapiro, Boris, Technion – Israel Institute of Technology, Dept. of Physics, 1995.08 08-1995.09 11 HO2
Shimony, Abner, Boston University, 11.10-11.14 ZEZ
Shmelkin, Dimitri, Independent Moscow University, 08.13-09.10 PPK
Sigurdsson, Ragnar, University of Iceland, Science Institute, 11.11-11.10 HU
SIMON, Károly, University of Budapest, Institute of Mathematics Technical, 11.13-11.14 SCH
Singh, Virendra, Tata Institute of Fundamental Research, 05.11-05.28 LMS
Sinitsyn, Aleksandr, University of Irkutsk, Institute of System Dynamics and Control Theory, 06.07-06.21 SM
Shulman, Tatiana, MIPT, 11.23-12.04 SF
Skarke, Harald, Humbold Universität zu Berlin, Institut f. Physik, 04.02-04.22 KGT
Skenderis, Kostas, Princeton University, 06.26-07.05 KGT
Slovák, Jan, Masaryk University, Dept. Algebra Geometry, 04.28-04.28 CAP 05.25-05.26 CAP 12.08-12.08 CAP
Solimeno, Salvatore, Universita "Federico II", 11.27-11.29 ZEZ
Soljacic, Marin, Princeton University, 08.02-08.08 SM
Somberg, Petr, MU UK, 06.12-06.24 KAK
Sonnenschein, Jacob, Tel Aviv University, 06.13-06.22 KGT
Sorokin, Dmitri, INFN, Sezione di Padova, 06.19-07.02 KGT
Souček, Vladimir, Charles University, Mathematical Institute, 09.18-09.22 CAP
Sperber, Wolfram, ZIB Berlin, 10.05-10.08 CEIC
Springer, Tonny Albert, Universitat Utrecht, Mathematisches Institut, 10.02-10.29 PPK
Stefanski, Bogdan, University of Cambridge, 06.26-07.07 KGT
Stegall, Charles, Universität Linz, 09.18-10.02 COO, 10.09-10.23 COO
Stanciu, Sonia, Utrecht University, Spinoza Institute, 04.10-04.19 KGT
Steinacker, Harold, Universität München, Institut f. Theoretische Physik, 05.14-05.20 KGT, 07.03-07.09 KGT
Stenholm, Stig, Royal Institut of Technology (KTH), Physics Department, 09.04-09.14 ZEZ, 11.10-11.17 ZEZ
Straube, Emil J., Texas A & M University, Department of Mathematics, 11.13-11.18 HU
Strickland, Elisabetta, Universita Di Roma "Tor Vergata", 09.05-09.10 PPK
Strobl, Thomas, TPI Jena, 05.16-05.23 AFG
Sun, Chang-Pu, Chinese Academy of Science, Institute of Theoretical Physics, 10.17-11.16 ZEZ
Suominen, Kalle-Antti, University of Turku, 11.10-11.16 ZEZ
Sutherland, David, Glasgow University, Dept. of Physics and Astronomy, 11.10-11.18 ZEZ
Sỳkora, Tomàs, Charles University, Inst. Particle and Nuclear Physics, 08.07-08.11 BK
Szczesny, Matthew Maciej, University of California, 06.19-06.25 KAK
Tandy, Peter, Kent State University, Department of Physics, 06.21-07.08 LMS
Tannor, David, Weizmann Institute, Dept. of Chemical Physics, 12.04-12.08 ZEZ
Tartakoff, David S., University of Illinois at Chicago, Dept. of MAthematics, 11.11-11.19 HU
Teleman, Constantin, University of Texas at Austin, Dept. of Mathematics, 06.26-07.09 KAK
Tevelev, Evgueni, Moscow Independent University, 08.10-09.05 PPK

Theisen, Stefan, Universität München, Sektion Physik, 03.16-07.15 KGT
Timashev, Dmitri, Moscow State University, 08.08-09.05 PPK
Tombesi, Paolo, University of Camerino, 11.30-12.03 ZEZ
Törnqvist, Nils, University of Helsinki, Physics Department, 05.06-05.19 LMS
Toscani, Giuseppe, Universita di Pavia, Dipartimento di Matematica, 06.09-06.11 SM, 12.20-12.23 SM
Townsend, Paul K., DAMPT, Center for Mathematical Sciences, 04.09-04.24 KGT
Tsallis, Constantino, Centro Brasileiro de Pesuiszs Fisicas, 11.30-12.05 ZEZ
Tseytlin, Arkady, Ohio State University, Physics Department, 06.26-07.09 KGT
Tuncel, Selim, University of Washington, Dept. of Mathematics, 11.21-12.16 SCH
Turett, Jay Barry, Oakland University, 09.18-09.24 COO
Tyc, Tomáš, Masaryk University, Dept. of Theor. Physics, 09.05-09.26 ZEZ, 10.04-10.04 ZEZ, 11.10-11.14 ZEZ
Unterreiter, Andreas, Universität Kaiserlautern, 03.01-03.20 SM, 06.08-06.19 SM
Vaidman, Lev, Tel-Aviv University, 11.09-11.17 ZEZ
van der Poorten, Alfred, Macquarie University, Center for Number Theory Research, 10.05-10.08 CEIC
Vasserot, Eric, University Cergy-Pontoise, 07.10-07.20 KAK
Vassilevich, Dmitri, Leipzig University, 05.15-06.10 YNG
Vedral, Vlatko, University of Oxford, 09.05-09.17 ZEZ
Vergne, Michéle, CNRS, Centre de Mathematique, Ecole Polytechnique, 07.18-07.30 KAK, 11.07-12.01 PPK
Verma, Dayanand, School of Mathematics, Institute of Fundamental Research, 11.07-12.17 PPK
Vershik, Anatoly, Math. Inst. Russian Acad., St. Petersburg, 06.12-07.06 KAK, 07.10-07.20 KAK, 07.21-07.24 SCHM
Vidal, Guifré, Universität Innsbruck, Institut für Theoretische Physik, 09.03-09.11 ZEZ
Vinberg, Ernest, Moscow State Univesity, 09.02-09.30 PPK
Vizman, Cornelia, West University of Timisoara, Insitute of Mathematics, 05.25-06.25 MI
Wakimto, Minoru, Kyushu University, 07.17-07.31 KAK
Walcher, Johannes, ETH Hönggerberg, Insitute for Theoretical Physics, 04.25-04.29 KGT
Wallach, Nolan, University of California, 08.07-08.23 PPK
Wang, Shu, Chinese Academy of Sciences, Institute of Mathematics, 10.01-11.15 SM
Werner, Elisabeth, Case Western Reserve University, Department of Mathematics, 10.08-10.14 COO
Wess, Julius, Universität München, 04.12-04.18 KGT
Wickramasekara, Sujeewa, University of Texas at Austin, 08.14-08.26 PPK
Williams, Anthony G., University of Adelaite, 06.26-07.08 LMS
Wolansky, Gershon, Technion Israel, Institute of Technology, 06.20-06.27 SM
Woodward, Chris, Rutgers University, 07.06-07.15 KGK
Yndurain, Francisco J., Universidad Autonoma de Madrid, 06.15-06.30 LMS
Yokura, Shoji, University of Kagoshima, Dept. of Math. Computer Science, 07.24-08.02 MI, 08.10-08.21 MI
Zabrodin, Anton, Institute of Theoretical and, Experimental Physics, 05.10-06.07 KAK
Zajíček, Luděk, Charles University Prague, Dept. of Math. Analysis, 09.24-09.28 COO
Zelevinsky, Andrei, Northeastern University, Department of Mathematics, 05.22-06.14 KAK
Zhan, Mingsheng, Chinese Academy of Sciences, Wuhan Institute of Physics and Mathematics, 09.10-09.19 ZEZ
Zhang, Kaijun, Institute of Mathematics, Academia Sinica, 10.17-10.23 SM
Zhang, Ping, Chinese Academy of Science, Institute of Mathematics, 10.17-10.23 SM
Zhou, Qing, National Natural Science Foundation, Dept. Mathematical and Physical Sciences, 10.04-10.09 CEIC
Zhizhchenko, Alexei, Russian Academy of Sciences, Department of Mathematics, 10.04-10.08 CEIC
Ziman, Mário, Slovac Academy of Sciences, Institute of Physics, 11.09-11.22 ZEZ
Zubelli, Jorge Passamani, I.M.P.A, 10.06-10.14 SM
Zukowski, Marek, Uniwersytet Gdanski, Instytut Fizyki Teoretycznej 1, 09.06-09.10 ZEZ, 09.27-09.30 ZEZ, 10.19-10.28 ZEZ, 11.11-11.24 ZEZ

Activities in electronic information and communication

by Peter W. Michor

The negotiations in the framework of the BIBMAT group of the 'Österreichische Mathematische Gresellschaft (ÖMG)' with the American Mathematical Society for opening online access to the Mathematical Reviews were finished sucessfully in December 2000. Negotiations for a consortium subscription to the journals of the AMS, and to the LINK electronic library of Springer-Verlag are ongoing.

The yearly meeting of the 'committee on electronic information and communication (CEIC)' of the International Mathematical Union took place in Vienna, October 7-9, 2000. See the report below. The next meeting of CEIC will be at the IHS in Princeton, in May 2001.

Minutes of the third meeting of the committee on electronic information and communication (CEIC) of the IMU. Vienna, October 5-7, 2000.

Participation: Peter Michor (Austria, in the chair), Jonathan Borwein (Canada, 4-8.10), John Ewing (USA, 4-8.10), Jonas Gomes (Brazil, not present), Martin Groetschel (Germany 5-8.10), Wilfrid Hodges (UK, 5-8.10), David Morrison (USA, 5-8.10), Kapil Paranjape (India, not present), Alf van der Poorten (Australia, 4-8.10), Alexei Zhizhchenko (Russia 5-8.10), Qing Zhou (China, 4-7.10), Wolfram Sperber (Germany 5-8.10, invited).

Preliminaries: Agenda, Minutes of previous meeting.

Math-Net: two talks were given.

Wolfram Sperber spoke on Math-Net in Germany: the regional concept, technical aspects (new layout of secondary homepages, new meta-maker for preprints, harvesting now via 9 regional modes) In the discussion concern was expressed that the scheme is too complicated to be easily extended over the whole world.

Martin Groetschel spoke on Math-Net International: What do we have, what is to be done? (some progress has occurred in France, Austria, Japan; Brazil was promising but the key person Jonas Gomes left for industry)

(1) An Agreement between CEIC and the European Physical Society was proposed. The agreement was approved unanimously.
(2) Agreement between CEIC and a new MathDoc cell at Grenoble as Math-Net service provider was proposed. This agreement was accepted with one vote against.
(3) Agreement between CEIC and the preprint indexing service MPRESS (Osnabrueck) as Math-Net service provider was proposed. This agreement was accepted with one vote against.
(4) Dissertations online are in preparation in France and in Germany; this could be a Math-Net service when ready. CEIC wonders if it can just be absorbed into MPRESS?
(5) Duties of a Math-Net member: designate an information coordinator, install the Math-Net page, generate metadata at least for preprints and persons.
(6) Technical advisory board: Dave Morrison reported on the activities. little email traffic up to now. More activity is expected.
(7) Math-Net as a portal: should it have some useful services like 'integer sequences', 'geometric models', featured sites, etc?
(8) Math-Net services should be decided upon by CEIC. Members are decided by the membership committee (now: Martin Groetschel). Jon Borwein, Dave Morrison, and Peter Michor will act as a test bed for the internationalization of Math-Net. Put up home pages, etc.

Report on the preprint server arXiv (central service in Los Alamos): (Morrison) It still exists despite fire and spies in Los Alamos!. There is a moratorium on establishing new mirrors, and a backlog on software upgrading, due to manpower shortage. Growth: there are now roughly 12000 preprints in mathematics, 250/month is the current uploading rate: see `http://www.arXiv.org/Stats/math_monthly.gif` for the statistics up to June 00. There is the new concept of an 'overlay journal': their files reside in the ArXiv. These are: Geometry and Topology, Advances in Theoretical Mathematical Physics, Annals of Math (in preparation). There is a list of journals which accept arXiv submissions in `http://front.math.ucdavis.edu/journals`.

Report on on the journal storage service JSTOR: (Morrison) The usage by mathematicians is one tenth of usual usage by other disciplines.

Report on activities of the AMS: (Ewing)

(1) Online page on journal prices: `http:/www.ams.org/membership/journal-survey.html`. AMS journals freely show abstracts and references, with links to Math Reviews (MR) and Zentralblatt ZBL. MR looks at 100,000 papers/year and adds 70,000 per year to MR. There is a new service MR-lookup `http:/www.ams.org/mrlookup` where authors can upload (future) references to their papers, etc.
(2) The AMS has bought the CM and AMS fonts for TeX in Type 1 postscript form from Blue Sky and put it into the public realm. The AMS is active in the UNICODE project: there are 970 mathematics symbols in UNICODE now. The AMS is also active in the

MathML (the mathematical coounterpart part of XML), CrossRef and DOI (Document object identifier - a joint activity of publishing houses and the music industry) activities.

Report on activities of the Canadian Math. Soc: (Borwein) It publishes 4 journals, all are online, but not free. There is the successful new Pacific Institute of Mathematical Sciences (PIMS) where now the Univ. of Washington (from the US) is a member. A sort of Oberwolfach in Alberta is being created. Most Canadian public money for electronic publishing projects is locked up in huge digital library projects.

Report on activities of the London Mathematical Society LMS: (Wilfried Hodges) There are now 10 full staff members, the LMS had to move to new premises. They run one fully electronic journal.

Report on the 'Deutsche Mathematiker Vereinigung' DMV: (Groetschel) This is an all volunteer enterprise with 1/2 employee. Much had been reported in Groetschel's talk.

Report on the European Mathematical Society: (Michor) The European Mathematical Trust is being founded which will run the Publishing house of the European Mathematical Society. It will not publish new journals, but will help to market existing journals.

Report on China: (Zhou) There are 10 departments with home pages. There are about 50 journals in Chinese language which contain some Mathematics.

Report on Russia: (Zhizhchenko) There are 11 local Math. societies. Electronic activities are centered in the Academy: 5 Math. journals, full text (in Russian) is freely available for all sites with .ru, .su, ... Access for others is decided upon request by a board. With secondary homepages there are big hopes and big problems. The main problems are: that Referativny journal, Doklady Nauk are in bad shape. About 50% of all papers by Russian mathematicians are still published in Russia.

Report on copyright questions: (Hodges)

(1) WIPO (World intellectual property organization), a UN-organization, has published guidelines which are just now being voted into different national laws. The copyright material ('checklist') of the CEIC (Wilfried Hodges' work) will be enhanced by an executive summary at the beginning containing a list of appropriate expectations of an author of a journal research article. Then it could be voted upon by the IMU, sent to ICSU, to UNESCO, etc. Wilfried Hodges and John Ewing will work on this, with Peter Michor pushing.
(2) What copyright statement should a mathematician put on his personal homepage: (Such as, 'The material on this homepage is for fair use only, the material is copyrighted by various publishing houses,' etc.): Common agreement: None!
(3) Call to mathematicians with homepages, and to older mathematicians: they should consider scanning their older reprints and put it online, to create an online version of their collected works. Libraries could collect these later. Each should also appoint an intellectual executor. Alf van der Poorten will start to do this and will also create a How-To page explaining the technical details of his approach. An article in the Notices of the AMS and elsewhere could be written about this project. Also Quing Zhou will produce a How-To page, using public domain tools.

CEIC website: (Borwein) Should look and feel of the site, `http://www.ceic.math.ca/`, it be similar to Math-Net (There was no consensus? It should be linked to by Math-Net and by the IMU home page. The IMU home page is now housed in IMPA, its maintenance could be better.

IMU world directory: (Groetschel) There is some financial loss to the IMU from the print version. An online version would be much cheaper, but somebody has to maintain it afterwards. The next print version is already decided upon. CEIC should make a recommendation along the following lines:

(1) The electronic version should be made available 6 months after the publication of the printed version.
(2) A plan for an update mechanism.
(3) Allocation of a certain amount of money per 4 year cycle to some institution which maintains the electronic world directory.
(4) Martin Groetschel will inquire about the present status, and suggest action if necessary.

In any case we will discuss it again at the next meeting, then present the recommendation to the executive committee.