Program of the Sessions

Gainesville, Florida, March 12-13, 1999

Friday, March 12

Meeting Registration
7:30 AM – 4:00 PM Third Floor Atrium, W. W. Little Hall

AMS Book Sale and Exhibit
7:30 AM – 4:00 PM Room 353, W. W. Little Hall

Special Session on Ergodic Theory and Dynamical Systems, I
8:00 AM – 10:40 AM Room 223, W. W. Little Hall
Organizer: Jonathan L. F. King, University of Florida

8:00AM (1) Maximal chaos on manifolds. Vidhu S. Prasad*, U. Mass Lowell, and Steve R. Alpern, LSE (940-28-63)
9:00AM (2) Chaotic measure-preserving homeomorphisms are generic. Fons G. M. Daalderop* and Robbert Fokkink, Delft University of Technology (940-54-267)
9:30AM (3) Kazhdan’s property T and the geometry of the collection of invariant measures. Eli Glasner*, Tel Aviv University, and Benjamin Weiss, Hebrew University (940-28-381)
10:00AM (4) Minimal and ergodic cocycles arising from linear differential systems. Mahesh G. Nerurkar, Rutgers University (940-28-54)

Special Session on Probability on Algebraic Structures, I
8:00 AM – 10:40 AM Room 235, W. W. Little Hall
Organizers: Arunava Mukherjea, University of South Florida

8:10AM (5) Hecke pairs, locally compact hypergroups and probability theory. Herbert Heyer, Mathematisches Institut, Universitaet Tuebingen, GERMANY (940-60-12)
8:50AM (6) Martin’s characterization of Levy processes on locally compact groups. Michael P. Voit, Universitaet Tuebingen (940-60-18)

Special Session on The Erdös Legacy and Connections to Florida, I
8:30 AM – 10:50 AM Room 101, W. W. Little Hall
Organizers: Arunava Mukherjea, University of South Florida

8:30AM (7) Erdös at the University of Florida. Preliminary report. Jean A. Larson, University of Florida (940-01-376)
9:00AM (9) Counting lattice points by means of the residue theorem. Preliminary report. Matthias Beck, Temple University (940-05-24)
9:30AM (11) A simple proof of Riemann’s function equation for zeta(s). Sinai Robins, Temple University (940-05-309)
10:00AM (12) Erdös’s elementary method for the asymptotics of partitions. Melvyn B. Nathanson, Lehman College (CUNY) (940-11-374)

The time limit for each contributed paper in the sessions is ten minutes. In the Special Sessions the time limit varies from session to session and within sessions. To maintain the schedule, time limits will be strictly enforced.

For papers with more than one author, an asterisk follows the name of the author who plans to present the paper at the meeting.

Papers flagged with a solid triangle (△) have been designated by the author as being of possible interest to undergraduate students.

Abstracts of papers presented in the sessions at this meeting will be found in Volume 20, Issue 2 of Abstracts of papers presented to the American Mathematical Society, ordered according to the numbers in parentheses following the listings. The middle two digits, e.g., 897-20-1136, refer to the Mathematical Reviews subject classification assigned by the individual author. Groups of papers for each subject are listed chronologically in the Abstracts. The last one to four digits, e.g., 897-20-1136, refer to the receipt number of the abstract; abstracts are further sorted by the receipt number within each classification.
Program of the Sessions – Gainesville, FL, Friday, March 12 (cont’d.)

10:30AM Stable sets. Preliminary report.
   (13) A. J. Hildebrand, University of Illinois (940-11-253)

Special Session on Finite Groups and Their Representations, I

8:30 AM – 10:50 AM Room 109, W. W. Little Hall
Organizer: Alexandre Turull, University of Florida
8:30AM Some integral representations of complex reflection groups.
   Walter Feit, Yale University (940-20-331)
9:00AM The Schur indices of the special linear groups.
   Alexandre Turull, University of Florida (940-20-144)
9:30AM Schur indices of projective representations of hyperoctahedral groups.
   Zhaohui Z. D. Du, Microsoft (940-16-357)
10:00AM Using character correspondences for Schur index computations. Preliminary report.
   Allen Herman, University of Regina (940-20-58)
10:30AM Tensor products involving the spin representation of the symmetric group. Preliminary report.
   Rod L. Gow, University College, Dublin. (940-20-114)

Special Session on Galois Theory, I

8:30 AM – 10:50 AM Room 205, W. W. Little Hall
Organizers: J. G. Thompson, University of Florida and H. Voelklein, University of Florida
8:30AM Higher dimensional algebraic fundamental groups.
   Shreeram S. Abhyankar, Purdue University (940-14-28)
9:00AM Galois groups of composite q-additive polynomials. Preliminary report.
   Ganapathy S. Sundaram, Bell Labs (940-12-343)
9:30AM Galois Extensions via Drinfeld-module based iterations.
   Paul A. Loomis, Purdue University (940-12-336)
10:00AM Linearized polynomials with classical Galois groups. Preliminary report.
   Michael E. Zieve, USC (940-14-346)
10:30AM Black box exceptional groups of Lie type. Preliminary report.
   William M. Kantor, University of Oregon, and Kay Magaard*, Wayne State University (940-20-205)

Special Session on Geometric Topology, I

8:30 AM – 10:50 AM Room 121, W. W. Little Hall
Organizers: James E. Keeling, University of Florida and Alexander N. Dranishnikov, University of Florida
8:30AM Embeddings in generalized manifolds.
   John L. Bryant* and Washington Mio, Florida State University (940-57-319)
9:00AM Some algebraic applications of topological rigidity. Preliminary report.
   Boris Goldfarb, SUNY at Albany (940-57-358)
9:30AM The geometric topology of homology manifolds. Preliminary report.
   Heather M. Johnston, Rutgers University (940-57-136)
10:00AM Stable Z-compactifications of polyhedra. Preliminary report.
   Steven C. Ferry, Rutgers University (940-57-172)

10:30AM Controlled maps on homology manifolds.
   (28) Preliminary report.
   Washington Mio* and John L. Bryant, Florida State University (940-57-329)

Special Session on Linear Operator Theory, I

8:30 AM – 10:50 AM Room 113, W. W. Little Hall
Organizers: Leiba Rodman, College of William & Mary and Scott A. McCullough, University of Florida
8:30AM Positive commutators of multipliers and Fourier multipliers. Preliminary report.
   Ira W. Herbst and Thomas L. Kriete, III*, University of Virginia (940-47-341)
9:00AM Lexicographic lifting and interpolation problems.
   Marisela Dominguez, Universidad Central de Venezuela (940-47-49)
9:30AM Model theory for hyponormal contractions.
   Michael A. Dritschel*, University of Cincinnati, and Scott McCullough, The University of Florida (940-47-305)
10:00AM Higher order Hankel forms, factorization and derivations. Preliminary report.
   William Cohn, Sarah Ferguson*, Wayne State University, and Richard Rochberg, Washington University (940-47-334)
10:30AM Existence of a rich collection of positively quadratically hyponormal weighted shifts.
   Raul E. Curto, The University of Iowa (940-47-178)

Special Session on Partial Differential Equations and Applications, I

8:30 AM – 10:50 AM Room 219, W. W. Little Hall
Organizers: Gang Bao, University of Florida and Yun-mei Chen, University of Florida
8:30AM Singularities of energy-minimizing maps.
   (34) Robert M. Hardt, Rice University (940-35-147)
9:00AM Weak compactness of harmonic maps and wave maps.
   Alex Freire, University of Tennessee (940-35-266)
9:30AM Chern-Gauss-Bonet integrals on complete 4-manifolds. Preliminary report.
   Alice S.Y. Chang, Princeton University and UCLA, Jie Qing*, UCSC, and Paul Yang, USC (940-53-356)
10:00AM The analysis of positive solutions of nonlinear partial differential equations and the topology of manifolds.
   Shihshu Walter Wei, The University of Oklahoma (940-53-332)
   Changyou Wang, Loyola University of Chicago (940-35-273)

Special Session on Analytical Problems in Mathematical Physics, I

8:30 AM – 10:50 AM Room 127, W. W. Little Hall
Organizers: Eric A. Carlen, Georgia Institute of Technology and Laszlo Erdös, Courant Institute, NYU
8:30AM A Heisenberg uncertainty principle for white noise analysis.
   Aurel I. Stan, Louisiana State University (940-60-361)

Appendix–4
NOTICES OF THE AMS
VOLUME 46, NUMBER 5
Gainesville, FL, Friday, March 12 – Program of the Sessions

9:00AM 8:30AM 9:00AM 9:00AM
Regularity and dimension bounds for random curves.
Almut Burchard, University of Virginia (940-82-236)

9:30AM 9:30AM 9:00AM 9:00AM
Lifshitz tails for random Schrödinger operators with negative singular Poisson potential.
Frederic Klopp*, Université Paris Nord, and Leonid A. Pastur, Université Paris 7 (940-82-85)

10:00AM 10:00AM 10:30AM 10:30AM
On the density of states of the Schrödinger operator with a periodic potential.
Yulia Karpeshina, UAB (940-35-293)

10:30AM 10:30AM 10:30AM 10:30AM
Non-monotonicity in random Schrödinger operators.

Günther Stolz, University of Alabama at Birmingham (940-81-203)

Special Session on Algebraic and Geometric Combinatorics, I
8:30 AM – 10:50 AM Room 207, W. W. Little Hall
Organizers: Andrew J. Vince, University of Florida
Neil L. White, University of Florida

8:30AM 8:30AM 9:00AM 9:00AM
Counting points on varieties over finite fields related to a conjecture of Kontsevich.
John R. Stembridge, University of Michigan (940-05-87)

9:00AM 9:00AM 9:30AM 9:30AM
Short rational functions.
Alexander Barvinok, University of Michigan (940-05-241)

9:30AM 9:30AM 10:00AM 10:00AM
A homotopy equivalence for set partitions related to liftings of \( S_n \), \( n \rightarrow \infty \).
Sheila Sundaram, Danbury, CT (940-05-84)

10:00AM 10:00AM 10:30AM 10:30AM
The Hilbert series of a ladder determinantal ideal.
Ian P. Goulden, University of Waterloo, Waterloo, Ontario, and Devadatta M. Kulkarni*, Oakland University, Rochester, Michigan (940-05-276)

10:30AM 10:30AM 10:30AM 10:30AM
Matroid automorphisms and symmetry groups.

Lori Fern, SUNY at Binghamton, Gary P. Gordon*, Lafayette College, Jason Leasure, University of Texas, and Sharon Pronchik, Imre (940-05-59)

Special Session on Geometry of Interacting Particles, Random Walks, and Brownian Motion, I
8:45 AM – 10:50 AM Room 233, W. W. Little Hall
Organizers: Irene Hueter, University of Florida
Gregory F. Lawler, Duke University

8:45AM 8:45AM 9:00AM 9:00AM
Hydrodynamic limit for the asymmetric marching soldiers model.
Timo Seppäläinen, Iowa State University (940-60-65)

9:00AM 9:00AM 9:30AM 9:30AM
Estimating selection from aligned DNA sequences.
Stanley A. Sawyer, Washington University in St. Louis (940-60-107)

9:30AM 9:30AM 10:15AM 10:15AM
Growth profile of weakly supercritical contact process on a tree.

Steven P. Lalley, Purdue University (940-60-333)

Special Session on Continuum Theory and Dynamical Systems, I
9:00 AM – 10:50 AM Room 125, W. W. Little Hall
Organizers: Philip Boyland, University of Florida
Beverly Brechner, University of Florida
John Mayer, University of Alabama at Birmingham

9:00AM 9:00AM 9:30AM 9:30AM
The contraction principle for certain locally connected Julia sets. Preliminary report.
Lex G. Oversteegen* and Alexander Blokh, UAB (940-54-303)

9:30AM 9:30AM 10:00AM 10:00AM
Dynamics of entire semigroups.

Hartje Kriete*, University of Goettingen, and Hiroki Sumi, Kyoto University (940-30-363)

10:00AM 10:00AM 10:30AM 10:30AM
Decomposable models of boundaries of Siegel disks. Preliminary report.
Andrew D. Maner*, John C. Mayer and Lex G. Oversteegen, University of Alabama at Birmingham (940-54-110)

10:30AM 10:30AM 10:30AM 10:30AM
Attractors for graph-critical rational functions. Preliminary report.
Alexander Blokh*, University of Alabama at Birmingham, and Michal Misiurewicz, Indiana University - Purdue University at Indianapolis (940-58-304)

Special Session on Markov Processes and Potential Theory, I
9:00 AM – 10:50 AM Room 239, W. W. Little Hall
Organizers: Joe Glover, University of Florida
Murali Rao, University of Florida

9:00AM 9:00AM 9:30AM 9:30AM
Brownian potentials and Besov spaces over domains. Preliminary report.
Hrvoje Šikić*, Washington University, St. Louis, and University of Zagreb, Croatia, and Mitchell H. Taibleson, Washington University, St. Louis (940-60-104)

9:30AM 9:30AM 10:00AM 10:00AM
Measure perturbations of Markovian semigroups.

R. K. Getoor, University of California, San Diego (940-60-130)

10:00AM 10:00AM 10:30AM 10:30AM
Hardy’s inequality for Dirichlet forms.

Patrick J. Fitzsimmons, University of California, San Diego (940-60-351)

10:30AM 10:30AM 10:30AM 10:30AM
Martingales on the excursion space.

Jacques Azema, University Paris 5 (940-00-192)

Special Session on Groups and Geometries, I
9:00 AM – 10:50 AM Room 201, W. W. Little Hall
Organizers: Chat Ho, University of Florida
Peter Sin, University of Florida

9:00AM 9:00AM 9:30AM 9:30AM
Pieces of eight.

Robert L. Griess Jr., University of Michigan (940-20-377)

9:30AM 9:30AM 10:00AM 10:00AM
Dade’s conjecture for the finite unitary groups.

Chao Ku, California Institute of Technology (940-20-377)

10:00AM 10:00AM 10:30AM 10:30AM
Is 71 : 35 a maximal subgroup of the Monster? Preliminary report.

Hiroyoshi Yamaki, Kumamoto University (940-20-212)

10:30AM 10:30AM 10:30AM 10:30AM
On the first cohomology group of a finite group.

Cornelius R. Hoffman, University of California Irvine (940-20-164)

Special Session on Computability Theory, I
9:00 AM – 10:50 AM Room 217, W. W. Little Hall
Organizers: Douglas Cenzer, University of Florida
Geoffrey Louis LaFort, University of West Florida
Rick L. Smith, University of Florida

9:00AM 9:00AM 9:30AM 9:30AM
Nonlow, r.e. degrees with the properties of low_2 degrees. Preliminary report.

Richard A. Shore, Cornell University (940-03-179)
Program of the Sessions – Gainesville, FL, Friday, March 12 (cont’d.)

9:30AM – 10:50AM Room 203, W. W. Little Hall
Invited Address Organizer: Jorge Martinez, University of Florida
9:00AM Coedic compactifications.
(68) Anthony W. Hager*, Wesleyan University, and Jorge Martinez, University of Florida (940-06-265)
9:30AM Embedding the algebra of all real-valued functions on a space X in a regular ring G(X) when G(X) is a C(Y). Preliminary report.
Melvin Henriksen, Harvey Mudd College (940-06-113)
10:00AM Model theory of real closed rings.
(70) Alex Prestel, Universität Konstanz, and Niels C. J. Schwartz*, Universität Passau (940-06-160)
10:30AM f-Rings and the Stone Weierstrass Theorem.
(71) Preliminary report.
Bernhard Banaschewski, McMaster University (940-06-97)

3:00PM Dynamics of fixed-point-free maps on tree-like continua.
(70) Preliminary report.
Piotr Minc, Auburn University (940-54-166)
4:00PM Dynamics and inverse limit spaces. Preliminary report.
(71) Louis Block, University of Florida (940-54-50)
4:30PM Retracts and indecomposability. Preliminary report.
(72) Wayne Lewis, Texas Tech University (940-54-275)
5:00PM One-parameter adjustments of self-insertion.
(73) Preliminary report.
Krystyna M. Kuperberg, Auburn University (940-58-88)
5:30PM Using the code space with self-similar fractals.
(74) Preliminary report.
James E. Keesling, University of Florida (940-28-352)

Special Session on Structure and Representation Theory of Lattice-Ordered Groups and f-Rings, I
9:00 AM – 10:50 AM Room 203, W. W. Little Hall
Organizer: Jorge Martinez, University of Florida
9:00AM Preliminary report.
(65) Some recent results on the computably enumerable sets. Preliminary report.
Peter A. Cholak*, University of Notre Dame, and Leo A. Harrington, University of California-Berkeley (940-03-83)
10:00AM A set with minimal wtt-degree and c.e. Turing degree. Preliminary report.
Reed Solomon*, University of Wisconsin, Madison, and Rod Downey, Victoria University (940-03-246)
10:30AM Every set has a least jump enumeration.
(67) Richard J. Cole*, University of Auckland, Rod G. Downey, Victoria University of Wellington, and Theodore A. Slaman, University of California, Berkeley (940-03-189)

Special Session on Continuum Theory and Dynamical Systems, II
2:30 PM – 5:50 PM Room 125, W. W. Little Hall
Organizers: Philip Boyland, University of Florida
Beverly Brechner, University of Florida
John Mayer, University of Alabama at Birmingham
2:30PM A characterization of k-dimensional Nobeling space for every k > 1.
(74) S. Ageev, Brest State University (940-54-379)
3:00PM Some properties and problems concerning continua arising in dynamical systems. Preliminary report.
(75) R. Daniel Mauldin, University of North Texas (940-58-225)

3:30PM Photons and stability of matter: How heavy is an electron.
(76) Elliott H. Lieb, Princeton University, and Michael P. Loss*, Georgia Tech (940-81-112)

Special Session on The Erdős Legacy and Connections to Florida, II
2:30 PM – 4:50 PM Room 101, W. W. Little Hall
Organizers: Krishnaswami Alladi, University of Florida
Jean Larson, University of Florida
2:30PM Induced subgraphs with given numbers of edges.
(81) Paul Erdös, Zoltán Furedi, University of Illinois at Urbana-Champaign, Bruce Rothschild*, University of California, Los Angeles, and Vera Sós, Mathematical Institute, Hungarian Academy of Sciences (940-05-206)
3:00PM Database security and concentrating sums of vectors.
(82) Preliminary report.
Jerrold R. Griggs, University of South Carolina (940-05-297)
3:30PM Countable partition ordinals.
(83) Rene J. Schipperus, University of Colorado at Boulder (940-04-256)
4:00PM What about polarized partition relations?
(84) Albin L. Jones, Dartmouth College (940-04-327)
4:30PM Partition relations for Successor Cardinals.
(85) Preliminary report.
Matthew D. Foreman, UC Irvine (940-05-306)

Special Session on Markov Processes and Potential Theory, II
2:30 PM – 5:20 PM Room 239, W. W. Little Hall
Organizers: Joe Glover, University of Florida
Murali Rao, University of Florida
2:30PM Multiply superharmonic functions and Jensen measures. Preliminary report.
(86) Kohur Gowrisankaran, McGill Univ. (940-31-208)
3:00PM Sobolev spaces, stability, and capacities.
(87) Lars I. Hedberg, Linköping University (940-31-221)
3:30PM Thin sets and boundary behavior of solutions of the Helmholtz equation.
(88) Kohur Gowri Sankaran, McGill University, and David H. Singman*, George Mason University (940-31-61)
4:00PM Choquet integrals in potential theory: An L^1-Evans law.
(89) David R. Adams, University of Kentucky (940-31-14)
4:30PM Jensen measures and harmonic measures.
(90) Preliminary report.
Brian J. Cole, Brown University, and Thomas J. Ransford*, Laval University (940-31-42)
MAY 1999
NOTICES OF THE AMS
Appendix–7

Gainesville, FL, Friday, March 12 – Program of the Sessions

5:00 PM
Nonlinear potentials and generalized Sobolev inequalities.
Igor E. Verbitsky, University of Missouri
(940-31-33)

Special Session on Finite Groups and Their Representations, II

2:30 PM – 4:50 PM Room 109, W. W. Little Hall
Organizer: Alexandre Turull, University of Florida
Elementary abelian subgroups of finite p-groups of prime exponent. Preliminary report.
Ronald M. Solomon, Mathematical Institute, Hungarian Academy of Sciences (940-20-260)
On some Lie algebras associated to pro-p-groups.
Krisztian Monti, University of Texas (940-14-201)
On the density of generating pairs in some finite classical simple groups.
Aron Bereczky, Mathematical Institute, Hungarian Academy of Sciences (940-20-260)
3:00 PM
A generalization of the Brauer-Suzuki theorem.
Aron Bereczky, Mathematical Institute, Hungarian Academy of Sciences (940-20-260)
Preliminary report.
Radha Kessar, University of Manchester
(940-20-347)
A finite group of odd order is generated by an abelian subgroup and a dicyclic group.
Ronald M. Solomon, Mathematical Institute, Hungarian Academy of Sciences (940-20-260)
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5:00 PM
Some open problems in computable analysis.
Amy K. C. S. Vanderbilt, University of Florida
(940-03-312)
Some open problems in computable analysis.
Amy K. C. S. Vanderbilt, University of Florida
(940-03-312)

Special Session on Linear Operator Theory, II

2:30 PM – 5:20 PM Room 121, W. W. Little Hall
Organizers: James E. Keeling, University of Florida
Alexander N. Dranishnikov, University of Florida
2:30 PM
Group actions on CAT(0) spaces.
Christopher W. Stark, University of Florida and NSF
(940-57-350)

Special Session on Geometric Topology, II

2:30 PM – 5:20 PM Room 205, W. W. Little Hall
Organizers: J. G. Thompson, University of Florida
H. Voecklein, University of Florida
2:30 PM
Arithmetic lifting over large fields. Preliminary report.
David Harbater, University of Pennsylvania
(940-14-186)
3:00 PM
Ordinariness and covers. Preliminary report.
Katherine F. Stevenson, University of Minnesota and Markus Linckelmann, CNRS
(940-20-347)
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5:00 PM
Some open problems in computable analysis.
Amy K. C. S. Vanderbilt, University of Florida
(940-03-312)

Special Session on Computation Theory, II

2:30 PM – 5:50 PM Room 217, W. W. Little Hall
Organizers: Douglas Cenzer, University of Florida
Geoffrey Louis LaForre, University of West Florida
Rick L. Smith, University of Florida
2:30 PM
Automorphisms of the Lattice of [I] Classes.
Rod Downey, Victoria University of Wellington
(940-03-176)
3:00 PM
Automorphisms of the computably enumerable sets.
Kevin Wald, University of Chicago
(940-03-312)

Special Session on Linear Operator Theory, II

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Organizers: James E. Keeling, University of Florida
Alexander N. Dranishnikov, University of Florida
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Amy K. C. S. Vanderbilt, University of Florida
(940-03-312)
Program of the Sessions – Gainesville, FL, Friday, March 12 (cont’d.)

4:00PM The spectral shift operator.
Fritz Gesztesy and Konstantin A. Makarov*, University of Missouri-Columbia (940-47-219)

4:30PM Perturbation of the Heisenburg commutation relation and unbounded subnormal operators. Preliminary report.
Daoxing Xia, Vanderbilt University (940-47-35)

5:00PM Stochastic linearization of nonlinear dissipative systems.
Jens M. Nielsen, University of California, Santa Cruz (940-47-08)

5:30PM Evolution semigroups and applications to control theory.
Yuri Latushkin, University of Missouri (940-47-170)

Special Session on Partial Differential Equations and Applications, II

2:30 PM – 5:20 PM Room 219, W. W. Little Hall
Organizers: Gang Bao, University of Florida Yun-mei Chen, University of Florida

2:30PM Indefinite elliptic problems in a domain.
Wenxiong Chen*, Southwest Missouri State University, and Congming Li, University of Colorado (940-35-165)

3:00PM Quasilinear elliptic systems with perturbation of critical growth.
Ruediger Landes, University of Oklahoma (940-35-366)

3:30PM Higher order stochastic differential equations and their applications.
Lizhen Mou, Bradley University (940-35-313)

4:00PM Solutions to the initial boundary value problem for a hydrodynamic model of semiconductors.
Sixin Qian, West Virginia University (940-35-106)

4:30PM Asymptotic behavior of semilinear parabolic differential equations and applications to stochastic processes. Preliminary report.
Yi Lee, U. of Maryland (940-35-05)

5:00PM Set-theoretic methods for partial differential equations. Preliminary report.
Efim Galperin, Université du Québec à Montréal (940-35-264)

Special Session on Analytical Problems in Mathematical Physics, II

2:30 PM – 5:50 PM Room 127, W. W. Little Hall
Organizers: Eric A. Carlen, Georgia Institute of Technology Laszlo Erdös, Courant Institute, NYU

2:30PM Atoms in magnetic fields: The high field limit at fixed nuclear charge. Preliminary report.
Jan Philip Solovej, Univ. of Copenhagen, and Jakob Yngvason*, Univ. of Vienna (940-81-261)

3:00PM Stability of matter in ultraviolet-cutoff quantized fields.
Gian Michele Graf, ETH Zurich (940-82-226)

3:30PM Spectral analysis of atoms and molecules interacting with the electromagnetic field.
Volker Bach*, TU Berlin, Juerg M. Froehlich, ETH Zuerich, and Israel Michael Sigal, Univ. of Toronto (940-81-39)

4:00PM The scattering matrix for stark effect Hamiltonians.
Peter D. Hislop, University of Kentucky (940-81-339)

4:30PM On a minimax principle for the eigenvalues in spectral gaps.
Marcel J. Griesemer*, University of Alabama at Birmingham, and Heinz Siedentop, Universitaet Regensburg (940-35-194)

5:00PM Abstract quantization in the presence of constraints. Preliminary report.
John R. Klauder, University of Florida (940-81-79)

5:30PM Derivative recursion formulas for linear second-order differential equations.
Andrew Gary Childs, University of North Alabama (940-34-19)

Special Session on Geometry of Interacting Particles, Random Walks, and Brownian Motion, II

2:30 PM – 4:35 PM Room 233, W. W. Little Hall
Organizers: Irene Hueter, University of Florida Gregory F. Lawler, Duke University

2:30PM Random growth models: Some recent results.
Janko Gravner, University of California, Davis (940-60-52)

3:15PM Uniform spanning forests and collections of random walks.
Russell D. Lyons*, Indiana University, Itai Benjamini, Oded Schramm, Weizmann Institute of Science, and Yuval Peres, Hebrew University of Jerusalem (940-60-216)

4:00PM Packing dimension and fine properties of stochastic processes. Preliminary report.
Yimin Xiao, University of Utah (940-60-34)

Special Session on Structure and Representation Theory of Lattice-Ordered Groups and Rings, II

2:30 PM – 4:50 PM Room 203, W. W. Little Hall
Organizer: Jorge Martinez, University of Florida

2:30PM Archimedean extensions of groups of continuous functions. Preliminary report.
Warren William McGovern, Bowling Green State University (940-06-202)

3:00PM Some ordered groups that are hard to divisibilize.
W. Charles Holland, Bowling Green State University (940-06-301)

3:30PM A characterization of lattice-ordered matrix algebras with the usual lattice order.
Jingjing Ma, University of Toledo (940-06-149)

4:00PM On the scarcity of lattice-ordered matrix algebras II.
Stuart A. Steinberg, University of Toledo (940-06-80)

4:30PM Wreath products with tyings. Preliminary report.
Richard N. Ball, University of Denver, and Stephen H. McCleary*, University of Denver (on leave for the academic year from Bowling Green State Univ.) (940-06-255)

Special Session on Algebraic and Geometric Combinatorics, II

2:30 PM – 5:50 PM Room 207, W. W. Little Hall
Organizers: Andrew J. Vince, University of Florida Neil L. White, University of Florida

2:30PM Symplectic matrices the easy way.
Timothy Y. Chow, Tellabs Research Center (940-05-143)

3:00PM Recognizing Schubert cells.
Sergey Fomin*, M.I.T., and Andrei V. Zelevinsky, Northeastern University (940-05-190)
3:30 PM - 5:10 PM Room 223, W. W. Little Hall
Organizer: Jonathan L. F. King, University of Florida

2:30 PM Finitary reconstruction of a measure preserving transformation. Preliminary report.
Terrence M. Adams*, Rhode Island College, and Andrew B. Nobel, University of North Carolina at Chapel Hill (940-28-372)

3:30 PM Infinite ergodic index does not imply power weak mixing for infinite measure preserving transformations. Preliminary report.
Terrence Adams, Ohio State University, Nathaniel Friedman, SUNY-Albany, and Cesar E. Silva*, Williams College (940-28-117)

4:00 PM Baire category results for infinite measure preserving transformations. Preliminary report.
Stanley J. Eigen, Northeastern University (940-28-364)

4:30 PM Group-rotation factors of one-sided shifts.
Preliminary report.
Karl Petersen, University of North Carolina, Chapel Hill (940-28-37)

Special Session on Groups and Geometries, II

3:00 PM - 5:20 PM Room 201, W. W. Little Hall
Organizers: Chat Ho, University of Florida, Peter Sin, University of Florida

3:00 PM A^± group geometries and locally grid graphs of Poffen type. Preliminary report.
Jonathan I. Hall, Michigan State University (940-51-348)

3:30 PM A local characterization of the long root geometries. Preliminary report.
Anna Kasikova and Ernest Shult*, Kansas State University (940-51-285)

4:00 PM A geometric approach to the standard form problem. Preliminary report.
Curtis D. Bennett and Sergey Shpectorov*, Bowling Green State University (940-20-355)

4:30 PM Primitive ovoids in O_2(q). Preliminary report.
Athula D. Gunawardena, University of Wisconsin-Whitewater (940-51-328)

5:00 PM Grassmannian fixed point ratios. Preliminary report.
Daniel E. Frohardt* and Kay Magaard, Wayne State University (940-15-340)

Department of Mathematics Reception

5:00 PM - 7:00 PM Keene Faculty Center, Dauer Hall

Saturday, March 13

Meeting Registration
7:30 AM - NOON Third Floor Atrium, W. W. Little Hall

AMS Book Sale and Exhibit
7:30 AM - NOON Room 353, W. W. Little Hall

Special Session on Linear Operator Theory, III

8:00 AM - 10:50 AM Room 113, W. W. Little Hall
Organizers: Leiba Rodman, College of William & Mary, Scott A. McCullough, University of Florida

8:00 AM Some new results in operator theory. Preliminary report.
Don Hadwin, University of New Hampshire (940-47-315)

8:30 AM Invariant subspaces and limits of similarities.
Alan Lambert, UNCC, and Srdjan Petrovic*, Western Michigan University (940-47-337)

9:00 AM Commutators on Besov spaces. Preliminary report.
Zhijian Wu, Univ. of Alabama (940-47-326)

8:30 AM Commutant lifting theorems. Preliminary report.
Tavan T. Trent, University of Alabama (940-47-268)
Program of the Sessions – Gainesville, FL, Saturday, March 13 (cont’d.)

10:00 AM - 10:40 AM Room 223, W. W. Little Hall

Special Session on Ergodic Theory and Dynamical Systems, III

Organizer: Jonathan L. F. King, University of Florida
8:00 AM - 8:20 AM
Higher order mixing for rank one group actions.
Andres del Junco*, University of Toronto, and
Reem Yassawi, Trent University (940-28-56)
8:20 AM - 8:40 AM
A transformation with square roots of all orders but
no infinite square root chain. Preliminary report.
Blair F. Madore, University of Toronto (940-28-46)
8:40 AM - 8:50 AM
Almost equicontinuous systems which are weakly
disjoint from all minimals. Preliminary report.
Ethan J. Akin*, The City College, and Eli Glasner,
University of Tel-Aviv (940-34-371)
9:00 AM - 9:20 AM
The proximal and regionally proximal relations in
minimal flows.
Joseph Auslander, University of Maryland
(940-54-180)

Special Session on Continuum Theory and Dynamical Systems, III

8:30 AM - 10:50 AM Room 125, W. W. Little Hall

Organizers: Philip Boyland, University of Florida
Bevery Brechner, University of Florida
John Mayer, University of Alabama at
Birmingham
8:30 AM - 8:50 AM
Chain explosions for planar maps. Preliminary
report.
Evelyn Sander, George Mason University
(940-58-353)
8:50 AM - 9:00 AM
The role of tangencies in global bifurcations for
planar maps.
Kathleen Alligood, George Mason University
(940-58-316)
9:00 AM - 9:30 AM
From the discrete to the continuous. Preliminary
report.
Judy A. Kennedy, University of Delaware
(940-58-244)
9:30 AM - 9:40 AM
The Horseshoe: Pruning and homoclinic families.
Andre de Carvalho*, IMS - SUNY at Stony Brook,
and Toby Hall, University of Liverpool (940-58-288)
9:40 AM - 10:00 AM
Rotation theory.
Michal Misiurewicz, IUPUI (940-58-198)

Special Session on The Erdös Legacy and Connections
to Florida, III

8:30 AM - 10:50 AM Room 101, W. W. Little Hall

Organizers: Krishnaswami Alladi, University of Florida
Jean Larson, University of Florida
8:30 AM - 8:50 AM
Two contradictory conjectures on Carmichael
numbers. Preliminary report.
Andrew Granville and Carl Pomerance*, U. of
Georgia (940-11-320)
8:50 AM - 9:00 AM
Lasker’s game. Preliminary report.
David A. Drake, University of Florida (940-05-344)
9:00 AM - 9:30 AM
Two problems of Erdös concerning character sums.
Preliminary report.
Peter D. T. A. Elliott, University of Colorado at
Boulder (940-11-82)
9:30 AM - 10:00 AM
Large values of the number of factorization of an
integer into primes.
Jean-Louis Nicolas, Université Claude-Bernard
(Lyon I) (940-11-299)
10:30AM  Multiplicative functions and small divisors. 
(194) Krishnaswami Alladi, University of Florida 
(940-11-375)

Special Session on Finite Groups and Their Representations, III
8:30AM – 10:50 AM  Room 201, W. W. Little Hall
Organizer: Alexandre Turull, University of Florida
8:30AM  The extraspecial case of the k(GV) problem. 
(195) Preliminary report. 
David H. Gluck* and Kay Magaard, Wayne State University (940-20-196)
9:00AM  Orbit sizes and character degrees. 
(196) Thomas M. Keller, Southwest Texas State University (940-20-62)
9:30AM  Fitting heights of soluble groups with few irreducible character degrees. Preliminary report.
Jeffrey M. Riedl, Ohio State University (940-20-188)
10:00AM  The complexity of modules. Preliminary report. 
(198) Jiping Zhang, Peking University (940-20-191)
10:30AM  Large orbits of supersolvable linear groups. 
(199) Thomas R. Wolf, Ohio University (940-20-317)

Special Session on Galois Theory, III
8:30AM – 10:50 AM  Room 205, W. W. Little Hall
Organizers: J. G. Thompson, University of Florida
H. Voelklein, University of Florida
8:30AM  Linear rigidity and symplectic groups. 
(200) Karl Straubach*, Universitaet Erlangen, and Helmut Voelklein, University of Florida (940-20-118)
9:00AM  A family of curves with many rational points, constructed by rigidity. 
(201) Gerhard Frey, University of Essen, Ernst Kani, Queens University, and Helmut Voelklein*, University of Florida (940-14-250)
9:30AM  Curves with infinite K-rational geometric fundamental group. 
Gerhard Frey, Universitaet Erlangen, Ernst Kani*, Queen’s University, and Helmut Voelklein, University of Florida (940-11-311)
10:00AM  Deformation of covers of the Riemann sphere along highly singular curves. Preliminary report.
Michael Dettweiler, University of Erlangen (940-14-215)
10:30AM  On rigid tuples in linear groups of odd dimension. 
(204) Stefan Reiter*, Univ. of Heidelberg, and Michael Dettweiler, Univ. of Erlangen (940-20-300)

Special Session on Groups and Geometries, III
8:30AM – 10:50 AM  Room 201, W. W. Little Hall
Organizers: Chat Ho, University of Florida
Peter Sin, University of Florida
8:30AM  The even type theorem for quasithin groups. 
(205) Preliminary report. 
Michael Aschbacher, Caltech (940-20-210)
9:00AM  Classification of finite simple groups. Preliminary report. 
Gernot Stroth*, Universit"{a}t Halle Wittenberg, Bernd Stellmacher, Universität Kiel, and Ulrich Meierfrankenfeld, Michigan State University, East Lansing (940-35-211)
9:30AM  Geometric techniques in the classification of quasithin Groups. Preliminary report. 
Stephen D. Smith, U Illinois-Chicago (940-20-77)
10:00AM  Discussion

Special Session on Computability Theory, III
8:30AM – 10:50 AM  Room 217, W. W. Little Hall
Organizers: Douglas Cenzer, University of Florida
Geoffrey Louis LaForte, University of West Florida
Rick L. Smith, University of Florida
8:30AM  On the lattice of c.e. subalgebras of a computable Boolean algebra. Preliminary report. 
Jeffrey B. Remmel*, University of California, San Diego, and Jinghui Yang, Qualcomm (940-03-286)
9:00AM  $\Delta^0_2$-categorical linear orderings and Boolean algebras. Preliminary report. 
Charles F. McCoy, University of Notre Dame (940-03-227)
9:30AM  The $\Delta^0_2$ Spectrum of a Linear Order. 
(210) Russell C. Miller, University of Chicago (940-03-146)
10:00AM  Degree spectra of relations on algebraic structures. 
(211) Denis R. Hirschfeldt, Cornell University (940-03-235)
10:30AM  Ramsey’s theorem for computably enumerable partitions. Preliminary report. 
Tamara J. Hummel*, Allegheny College, and Carl G. Jockusch Jr., University of Illinois (940-03-222)

Special Session on Geometric Topology, III
8:30AM – 10:50 AM  Room 121, W. W. Little Hall
Organizers: James E. Keesling, University of Florida
Alexander N. Dranishnikov, University of Florida
8:30AM  Topological equivalence of discontinuous norms. 
(213) Jan J. Dijkstra*, The University of Alabama, and Jan van Mill, Vrije Universiteit (940-57-308)
9:00AM  A noncontractible cell-like compactum whose suspension is contractible. 
(214) Dušan Repovš, University of Ljubljana (940-57-07)
9:30AM  Universal metric spaces and extension dimension. 
(215) Alex Chigogidze*, University of Saskatchewan, and Vesko Valov, University of Swaziland (940-57-78)
10:00AM  Function spaces and shape theories. Preliminary report. 
Jerzy Dydak, University of Tennessee (940-55-145)
10:30AM  On homological Borsuk-Sieklucki Theorem. 
(217) Rolando Jimenez* and Evgeny Shchepin, Instituto de Matematicas, UNAM (940-54-239)

Special Session on Partial Differential Equations and Applications, III
8:30AM – 10:50 AM  Room 219, W. W. Little Hall
Organizers: Gang Bao, University of Florida
Yun-mei Chen, University of Florida
8:30AM  Exponential decay of solutions to nonlinear parabolic systems. Preliminary report. 
Zhengfang Zhou, Michigan State University (940-35-291)
9:00AM  Rank one and rank zero sets of harmonic mappings. 
(219) Qing Han, University of Notre Dame/New York University (940-35-211)
Xuefeng Wang, Tulane University (940-92-102)
Program of the Sessions – Gainesville, FL, Saturday, March 13 (cont’d.)

10:00AM  
Existence of entire large positive solutions of semilinear elliptic systems. Preliminary report.  
Alan V. Lair and Alhuwa W. Wood*, Air Force Institute of Technology (940-35-67)

10:30AM  
A reverse estimate for Hodge decomposition of \( p \)-Laplacian type nonlinear operators.  
Baisheng Yan, Michigan State University (940-35-36)

Special Session on Geometry of Interacting Particles, Random Walks, and Brownian Motion, III

8:45 AM – 10:50 AM  
Room 233, W. W. Little Hall
Organizers: Irene Hueter, University of Florida  
Gregory F. Lawler, Duke University

8:45 AM (223)  
Anisotropic contact process and percolation on trees between phase transitions.  
Irene Hueter, University of Florida, Gainesville, FL (940-60-252)

9:30 AM (224)  
Surface tension and Wulff construction in three or more dimensions.  
Raphaël Cerf, Université Paris Sud, and Agoston Pisztora*, Carnegie Mellon University (940-60-150)

10:15 AM (225)  
Boundary Fluctuations in Wulff droplets. Preliminary report.  
Kenneth S. Alexander, University of Southern California (940-60-330)

Special Session on Markov Processes and Potential Theory, III

9:00 AM – 10:50 AM  
Room 239, W. W. Little Hall
Organizers: Joe Glover, University of Florida  
Murali Rao, University of Florida

9:00 AM (226)  
Crossing estimates for symmetric Markov processes.  
Zhen-Qing Chen, University of Washington, Patrick J. Fitzsimmons, University of California, San Diego, and Renming Song*, University of Illinois (940-129)

9:30 AM (227)  
Boundary Harnack principle for symmetric stable processes.  
Renming Song and Jang-Mei Wu*, University of Illinois (940-31-128)

10:00 AM (228)  
Isometric stochastic flows on spheres.  
Ming Liao, Auburn University (940-60-43)

10:30 AM (229)  
Asymptotics of Brownian first-passage time over a stochastic boundary based on the local time.  
Zoran Vondraček, University of Zagreb (940-60-86)

Special Session on Structure and Representation Theory of Lattice-Ordered Groups and F-Rings, III

9:00 AM – 10:50 AM  
Room 203, W. W. Little Hall
Organizer: Jorge Martinez, University of Florida

9:00 AM (230)  
Nilpotent elements in totally ordered commutative rings.  
James J. Madden, Louisiana State University (940-06-270)

9:30 AM (231)  
A classification of totally ordered positive commutative nil-monoids with 6, 7, and 8 elements. Preliminary report.  
Gretchen W. Whipple, Louisiana State University (940-06-133)

10:00 AM (232)  
Properties of semigroup rings as f-rings. Preliminary report.  
Chawne M. Kimber, University of Florida (940-06-85)

10:30 AM (233)  
F* rings are O*. Preliminary report.  
Piotr J. Wojciechowski, The University of Texas at El Paso (940-06-154)

Special Session on Analytical Problems in Mathematical Physics, III

9:00 AM – 10:50 AM  
Room 127, W. W. Little Hall
Organizers: Eric A. Carlen, Georgia Institute of Technology  
Laszlo Erdős, Courant Institute, NYU

9:00 AM (234)  
On the spectrum of interface states in the XXZ model. Preliminary report.  
Bruno L. Nachtergaele, UC Davis (940-82-362)

9:30 AM (235)  
On the stationary state of a model in non-equilibrium statistical mechanics. Preliminary report.  
Lawrence E. Thomas, University of Virginia (940-82-200)

10:00 AM (236)  
Casas of equality in Bobkov’s inequality and in Gaussian rearrangement.  
Eric A. Carlen, Georgia Institute of Technology, and J. Clayton Kerce*, Georgia Institute of Technology (940-46-195)

10:30 AM (237)  
Sharp inequalities and functional determinants.  
Thomas P. Branson, University of Iowa (940-58-290)

Invited Address

11:10 AM – NOON  
Main Lecture Hall, Carleton Auditorium
(238)  
Geometric and fractal properties of the path of a Brownian particle.  
Gregory F. Lawler, Duke University (940-60-23)

Invited Address

1:25 PM – 2:15 PM  
Main Lecture Hall, Carleton Auditorium
(239)  
Alexander N. Dranishnikov, University of Florida (940-25-01)

Special Session on The Erdős Legacy and Connections to Florida, IV

2:30 PM – 4:50 PM  
Room 101, W. W. Little Hall
Organizers: Krishnaswami Alladi, University of Florida  
Jean Larson, University of Florida

2:30 PM (240)  
Some progress on Erdős problems. Preliminary report.  
Andras Hajnal, Rutgers University (940-04-27)

3:00 PM (241)  
Carl Darby, UNLV (940-04-318)

3:30 PM (242)  
Paul Erdős and discrepancy theory.  
Vera T. Sós, Mathematical Institute of the Hungarian Academy of Sciences (940-11-296)

4:00 PM (243)  
Paul Erdős and the Southeastern Conferences on Combinatorics, Graph Theory and Computing.  
Frederick Hoffman, Florida Atlantic University (940-05-338)

4:30 PM (244)  
Partitions and selections in planar geometry.  
R. Daniel Mauldin, University of North Texas (940-04-223)
Special Session on Markov Processes and Potential Theory, IV
2:30 PM – 4:20 PM Room 239, W. W. Little Hall
Organizers: Joe Glover, University of Florida
Murali Rao, University of Florida
2:30PM Some general results involving stationary random
(245)
Olav H. Kallenberg, Auburn University
(940-60-307)
3:00PM Excessive functions related to T-potentials.
(246)
Preliminary report.
Joseph Glover, Zoran R. Pop-Stojanovic*, Murali
Rao, University of Florida, Renming Song,
University of Illinois at Urbana-Champaign, and
Hrvoje Šikić, Washington University, St. Louis
(940-60-108)
3:30PM Path measure limits for conditional survival
(247)
distributions of Brownian motion in an obstacle
setting. Preliminary report.
Sunder Sethuraman, Iowa State University
(940-60-142)
4:00PM Exit time moments for Brownian motion, Poisson
(248)
problems and Riemannian geometry.
Patrick T. McDonald, New College of USF
(940-31-365)

Special Session on Finite Groups and Their
Representations, IV
2:30 PM – 4:50 PM Room 109, W. W. Little Hall
Organizer: Alexandre Turull, University of Florida
2:30PM Irreducible tensor products over symmetric group.
(249)
Preliminary report.
Christine Bessenrodt, Otto-von-Guericke-Universitat
Magdeburg, and Alexander Kleshchev*.
University of Oregon
(940-20-66)
3:00PM Reduction mod p of unramified representations
(250)
of finite groups of Lie type. Preliminary report.
Pham Huu Tiep*, University of Florida, and
Alexander E. Zalesskii, University of East Anglia
(940-20-214)
3:30PM Simply connected, adjoint and universal groups of
(251)
Lie type.
Peter Paul Schmid, Mathematisches Institut,
University of Tuebingen (940-20-66)
4:00PM Restrictions of \( \Omega_m(q) \)-modules to alternating
(252)
groups. Preliminary report.
William J. Husen, Ohio State University
(940-20-15)
4:30PM Finite subgroups of Lie groups.
(253)
Robert L. Griess Jr., University of Michigan
(940-20-368)

Special Session on Galois Theory, IV
2:30 PM – 4:50 PM Room 205, W. W. Little Hall
Organizers: J. G. Thompson, University of Florida
H. Voelklein, University of Florida
2:30PM A nilpotent Weil pairing and application of the
(254)
nilpotent Tate-Grassmannian to the inverse Galois
Michael David Fried, UC Irvine (940-14-158)
3:00PM Conjectural Galois extensions of Q with Galois
(255)
group SL(3,3). Preliminary report.
Avner D. Ash, Ohio State University
(940-11-53)
3:30PM Field of moduli vs field of definition and central
extensions as Galois groups. Preliminary report.
Stefan Wewers, University of Pennsylvania
(940-11-243)
4:00PM Realizing the alternating groups as monodromy
(256)
groups of meromorphic functions on genus one
Riemann surfaces.
Mike Fried, University of California at Irvine, Eric P.
Klassen*, Florida State University, and Yaacov
Kopeliovich, Parametric Technologies (940-30-197)
4:30PM Equations for a Hurwitz space associated with
(257)
degree 7 elliptic subfields of genus 2 function fields.
Preliminary report.
Vishwa Krishnamoorthy* and Tanush Shaska,
University of Florida (940-12-287)

Special Session on Groups and Geometries, IV
2:30 PM – 4:20 PM Room 201, W. W. Little Hall
Organizers: Chat Ho, University of Florida
Peter Sin, University of Florida
2:30PM Classification of some Griesmer bound codes.
(258)
Wolfgang Willems, University of Magdeburg
(940-94-116)
3:00PM 2-Rank and the chromatic number of a graph.
(259)
Preliminary report.
Chris D. Godsil*, University of Waterloo, and
Gordon F. Royle, University of Western Australia
(940-05-325)
3:30PM On certain Schur rings of dimension 4.
(260)
Kenny Akiyama, Fukuoka University, Fukuoka,
Japan (940-20-134)
4:00PM Recent results on difference sets with classical
(261)
parameters.
Qing Xiang, University of Delaware (940-05-135)

Special Session on Computability Theory, IV
2:30 PM – 5:00 PM Room 217, W. W. Little Hall
Organizers: Douglas Cenzer, University of Florida
Geoffroy Louis LaForte, University of West Florida
Rick L. Smith, University of Florida
2:30PM Minimality questions and completions of PA.
(262)
Preliminary report.
Julia F. Knight, University of Notre Dame
(940-03-103)
3:00PM Effective Robinson forcing. preliminary report.
(263)
Walker M. White, Cornell University
(940-03-247)
3:30PM Relative computability of models and enumerations.
(264)
Alex M. McAllister, Dartmouth College
(940-03-277)
4:00PM Computationally enumerable relations on computable
(265)
structures.
Valentina S. Harizanov, The George Washington
University (940-03-259)
4:30PM Computable enumerability relations on computable
(266)
structures.
Valentina S. Harizanov, The George Washington
University (940-03-259)
4:30PM On automata presentable structures. Preliminary
(267)
report.
Bakhadyr M. Khoussainov* and Sasha Rubin, The
University of Auckland (940-03-119)
5:00PM Generalized weak presentations. Preliminary report.
(268)
Alexandra Shlapentokh, East Carolina University,
Greenville, NC (940-03-193)
5:30PM Reflection principles and constructive large
(269)
cardinals.
Edward R. Griffor, CAI (940-30-271)
Program of the Sessions – Gainesville, FL, Saturday, March 13 (cont’d.)

Special Session on Geometric Topology, IV
2:30 PM – 5:20 PM Room 121, W. W. Little Hall
Organizers: James E. Keisling, University of Florida
Alexander N. Dranishnikov, University of Florida

2:30PM (270) Preliminary report.
Hanspeter Fischer and David G. Wright*, Brigham Young University (940-57-359)
3:00PM (271) Preliminary report.
Hanspeter Fischer and David G. Wright*, Brigham Young University (940-57-359)
3:00PM (272) Preliminary report.
Evgeny V. Shchepin, Steklov Math. Inst. (940-57-240)
4:00PM (273) Preliminary report.
Andreas Zastrow, Ruhr-Universitaet Bochum (940-55-314)
4:30PM (274) Preliminary report.
Hanspeter Fischer, Brigham Young University (940-57-175)
5:00PM (275) Preliminary report.
Robert J. Daverman, University of Tennessee (940-57-68)

Special Session on Linear Operator Theory, IV
2:30 PM – 6:20 PM Room 113, W. W. Little Hall
Organizers: Leiba Rodman, College of William & Mary
Scott A. McCullough, University of Florida

2:30PM (276) The Friedrichs operator of a planar domain.
Mihai Putinar*, University of California, and Harold S. Shapiro, Royal Institute of Technology-Stockholm (940-30-111)
3:00PM (277) Local semigroups of isometries and applications.
Ramon Bruzual, Universidad Central de Venezuela (940-47-44)
3:30PM (278) The commutator structure of operator ideals.
Kenneth J. Dykema, Odense University, Tadeusz Figiel, Inst. of Mathematics PAN, Gary Weiss*, University of Cincinnati, and Mariusz Wodzicki, Berkeley (940-47-13)
4:00PM (279) Contractive extension problems for matrix valued almost periodic functions of several variables.
Leiba Rodman, Ilya M. Spitkovsky and Hugo J. Woerdeman*, The College of William and Mary (940-47-169)
4:30PM (280) Representations of holomorphic functions on the polydisc.
Linda J. Patton*, Cal Poly, San Luis Obispo, and Mihai Putinar, University of California, Santa Barbara (940-47-218)
5:00PM (281) On the limit of a one parameter family of exponentials of two operators.
Preliminary report.
Gaspar Porta, University of Chicago (940-47-378)
5:30PM (282) A characterization of band preserving projection operators.
Yuri A. Abramovich*, IUPUI, and Arkady K. Kitover, CCP (940-47-159)

6:00PM (283) Interpolation with symmetries and two-point interpolation in Hardy class.
Daniel Alpay, Ben-Gurion University of the Negev, Israel; Vladimir Bolotnikov and Leiba Rodman*, College of William and Mary (940-47-31)

Special Session on Partial Differential Equations and Applications, IV
2:30 PM – 5:20 PM Room 203, W. W. Little Hall
Organizer: Jorge Martinez, University of Florida

2:30PM (284) On the optimal control problems governed by partial differential equations.
Mohsen Razzaghi, Mississippi State University (940-49-57)
3:00PM (285) Preliminary report.
Ping Zhang, Academia Sinica, and Yuxi Zheng*, Indiana University (940-35-292)
3:30PM (286) Time periodic solutions of a class of nonlinear dispersive wave equations.
Preliminary report.
Bin-Yu Zhang, University of Cincinnati (940-35-105)
4:00PM (287) A variational principle to the Kramers equation.
Chaocheng Huang, Wright State University (940-35-109)
4:30PM (288) Preliminary report.
Celia A. Z. Barcelos*, Universidade Federal de Uberlandia, and Yunmei Chen, University of Florida (940-35-220)
5:00PM (289) A Rayleigh-Ritz method applied to a two-dimensional inverse spectral problem.
C. Meave McCarthy, Murray State University (940-35-22)

Special Session on Structure and Representation Theory of Lattice-Ordered Groups and f-Rings, IV
2:30 PM – 4:20 PM Room 121, W. W. Little Hall
Organizer: Constantine Tsinakis, Vanderbilt University

2:30PM (290) A structure theorem for residuated lattices.
Constantine Tsinakis, Vanderbilt University (940-06-122)
3:00PM (291) Lattice-ordered quotients.
Preiliminary report.
R. H. Redfield, Hamilton College (940-06-171)
3:30PM (292) Hyper-special-valued lattice-ordered groups.
Preiliminary report.
Bing-Yu Zhang, University of Cincinnati (940-35-105)
4:00PM (293) A noncompactifiable O-flow.
Preliminary report.
Richard N. Ball, Denver (940-06-250)

Special Session on Geometry of Interacting Particles, Random Walks, and Brownian Motion, IV
2:30 PM – 4:35 PM Room 219, W. W. Little Hall
Organizers: Mark Newman, University of California, Santa Barbara
Firas Rassoul-Agha, University of Utah

2:30PM (294) A martingale approach in the study of percolation clusters.
Yu Zhang, University of Colorado, Colorado Springs (940-60-298)
Special Session on Algebraic and Geometric Combinatorics, IV

2:30 PM – 5:20 PM Room 207, W. W. Little Hall
Organizers: Andrew J. Vince, University of Florida
Neil L. White, University of Florida

2:30 PM The k-consecutive arrangements. Preliminary report.
Bruce E. Sagan* and William Brockman, Michigan State University, East Lansing (940-05-25)

3:00 PM A combinatorial proof of the log-concavity of the numbers of permutations with k runs.
Miklos Bona* and Richard Ehrenborg, IAS (940-05-45)

3:30 PM The intersection lattice of a discriminantal arrangement.
Christos A. Athanasiadis, MSRI (940-05-111)

4:00 PM Aztec dungeons and powers of 13.
Mihai A. Ciucu, Georgia Institute of Technology (940-05-262)

4:30 PM Graphical generalizations of the sieve formula.
Gabor Hetyei, University of Kansas (940-05-64)

5:00 PM Pieri operators on posets. Preliminary report.
Nantel Bergeron, Stefan Mykytiuk, York University, Frank Sottile*, University of Wisconsin, and Stephanie van Willigenburg, York University (940-05-74)

Special Session on Probability on Algebraic Structures, IV

2:30 PM – 5:30 PM Room 235, W. W. Little Hall
Organizers: Gregory M. Budzban, Southern Illinois University at Carbondale
Philip Feinsilver, Southern Illinois University at Carbondale
Arunava Mukherjea, University of South Florida

2:30 PM Algebraic aspects of probability theory.
Valerii Maximov, Universitetet w Bialymstoku (940-60-345)

3:20 PM Topics in random matrix theory.
Goran Hognas, Abo Akademi University (940-60-284)

4:00 PM Break

4:20 PM Arithmetics of probability measures on symmetric spaces.
Piotr Graczyk, Universite d’Angers (940-60-234)

4:50 PM On shifted convolution powers and concentration functions in locally compact groups.
Wojciech Jaworski, Carleton University (940-60-217)

Special Session on Ergodic Theory and Dynamical Systems, IV

2:30 PM – 6:00 PM Room 223, W. W. Little Hall
Organizer: Jonathan L. F. King, University of Florida

2:30 PM Billiards on surfaces of constant curvature.
(307) Eugene Gutkin, USC (940-58-51)

3:30 PM A half-commutative IP Roth theorem.
(308) Randall G. McCutcheon, University of Maryland (940-28-47)

4:30 PM Oscillation inequalities in ergodic theory, the multi-parameter case. Preliminary report.
(309) Roger L. Jones*, DePaul University, Joseph Rosenblatt, University of Illinois at Urbana, and Mate Wierdl, University of Memphis (940-26-48)

5:20 PM Residuality and orbit equivalence.
(310) Daniel J. Rudolph, University of Maryland (940-26-38)