

TUDOR S. RATIU
SCHOOL OF MATHEMATICS
SHANGHAI JIAO TONG UNIVERSITY, 800 DONGCHUAN ROAD
MINHANG DISTRICT, SHANGHAI, 200240 CHINA
ratiu@sjtu.edu.cn

EDUCATION

1980, Ph.D., University of California, Berkeley, USA
1974, M.A., University of Timișoara, Romania
1973, B.Sc., University of Timișoara, Romania

EMPLOYMENT

2016-present: Chaired Professor of Mathematics, Shanghai Jiao Tong University, China
2015-present: Emeritus Prof. of Mathematics, Ecole Polytechnique Fédérale de Lausanne, Switzerland
2014-2015: Deputy Director, Center of Mathematical Sciences, Skolkovo Institute of Science and Technology, Skolkovo, Moscow Region, Russia
2014-2015: Professor of Mathematics, Skolkovo Institute of Science and Technology, Skolkovo, Moscow Region, Russia
2002-2014: Director, Bernoulli Center, Ecole Polytechnique Fédérale de Lausanne, Switzerland
1998-2015: Chair of Geometric Analysis, Ecole Polytechnique Fédérale de Lausanne, Switzerland
2001-present: Emeritus Professor of Mathematics, University of California, Santa Cruz, USA
1988-2001: Professor of Mathematics, University of California, Santa Cruz, USA
1987-1988: Associate Professor of Mathematics, University of California, Santa Cruz, USA
1983-1988: Associate Professor of Mathematics, University of Arizona, Tucson, USA
1980-1983: T.H. Hildebrandt Research Assistant Professor, University of Michigan, Ann Arbor, USA
1976-1980: Teaching Associate, University of California, Berkeley, USA
1974-1975: Programmer, Central Institute of Management, Bucharest, Romania

VISITING POSITIONS

Fall 2015, Pontifícia Universidade Católica and Instituto Nacional de Matemática Pura e Aplicada, Rio de Janeiro, Brazil
Winter 2015, Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria
Summer 2014, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom
Winter 2013, Lomonosov Moscow State University, Moscow, Russia
Winter, Summer 2014, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom
Summer 2012, Lomonosov Moscow State University, Moscow, Russia
Summer 2012, Fields Institute for Mathematical Sciences, Toronto, Canada
Spring 2011, Institut de Hautes Études Scientifiques, Bures-sur-Yvette, France
Spring 2011, Institute for Advanced Study, Princeton, USA
Winter 2011, Applied and Computational Mathematics, Caltech, Pasadena, California, USA
Fall 2010, Consejo Superior de Investigaciones Científicas, Madrid, Spain
Spring 2010, Mathematical Sciences Research Institute, Berkeley, USA
Fall 2009, Mathematical Sciences Research Institute, Berkeley, USA
Summer 2009, Universidad Nacional del Sur, Bahia Blanca, Argentina
Fall 2007, Université de Paris Sud, Orsay, France
Fall 2005, University of Padova, Italy
Spring 2005, University of Haifa, Israel
Summer 2005, Abdus Salam ICTP Trieste, Italy
Summer 2003, CNRS researcher at the Institut Non Linéaire de Nice, Nice, France
Summer 2003, Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria,
as organizer of the program *Geometry of the Moment Map*

Spring 2002, Université de Paris VI, Paris, France
 Summer 2002, Mathematisches Institut, Technische Universität München, Germany
 Summer 2001, Mathematisches Institut, Technische Universität München, Germany
 Summer 1999, Mathematisches Institut, Technische Universität München, Germany
 Summer 1997, Keio University, Yokohama and RIMS, Kyoto, Japan; University of Padova, Italy
 Summer 1996, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom
 Spring 1996, Universidad Nacional del Sur, Bahia Blanca, Argentina
 1994-95, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France
 Spring 1995, Weizmann Institute, Rehovot, Israel
 Summer 94, Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria
 Winter 94, Mathematical Sciences Research Institute and Department of Mathematics,
 UC Berkeley, USA, as a Miller Research Professor
 Summer 93, Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria
 Winter 93, Fields Institute for Research in Mathematical Sciences, Waterloo, Canada
 Spring 92, Université de Paris VI, Paris, France
 Summer 90, Max Planck Institute for Mathematics, Bonn, Germany
 Spring 90, Université des Sciences et Techniques du Languedoc, Montpellier, France
 Fall 89, Mathematical Sciences Institute, Cornell University, Ithaca, New York, USA
 1988-89, Mathematical Sciences Research Institute, Berkeley, California, USA
 1984-87, Eight months of each year at the University of California, Berkeley, as a visiting scholar
 1983-84, Mathematical Sciences Research Institute, Berkeley, California, USA
 Summer 84, Max Planck Institute for Mathematics, Bonn, Germany
 Fall 83, Center for Nonlinear Studies, Los Alamos National Laboratory, USA

AWARDS AND HONORS

2016, International prize “Tullio Levi-Civita” for the Mathematical and Mechanical Sciences, International Research Center on Mathematics and Mechanics of Complex Systems, Università degli Studi dell’Aquila, Italy.
 2015, Award of Excellence in Sciences from the American-Romanian Academy of Arts and Sciences
 2012, AMS Fellow (first year of the program)
 2011, Winner of the Russian Megagrant for three years
 2010, Honorary Adjunct Professor, Graduate School of Information Technology and Mathematical Sciences, University of Ballarat, Mount Helen, Victoria, Australia
 2009, Award of the Romanian Academy for excellence in research and collaboration with Romania
 2005, Honorary member: “Simion Stoilow” Mathematics Institute, Romanian Academy, Bucharest
 2003, Awarded the medal *Star of Romania, commander rank*
 2002, Plenary speaker at the annual meeting of the Swiss Mathematical Society, Davos
 2001, Plenary speaker at the joint Austrian-German annual Mathematical Society Meeting, Vienna
 2000, Ferran Sunyer i Balaguer Prize winner, Institut d’Estudis Catalans, Barcelona
 1998, Plenary invited lecturer at the annual AMS meeting in Baltimore, MD
 1997, Humboldt Senior Professorship Prize
 1996, Phillips Lecturer, Haverford College
 1995, Plenary invited lecturer at the annual SMM meeting in Colima, Mexico
 1994-95, Fulbright and IHES Fellow, Bures-sur-Yvette, France
 Winter 1994, Miller Research Professor at UC Berkeley
 1984-87, A. P. Sloan Foundation Fellow
 1983-86, N.S.F. Postdoctoral Fellow
 Winter 1978, Brandeis University Graduate Fellowship
 1972-74, Romanian National Merit Student Fellowship

BIBLIOMETRIC DATA

MathSciNet: 3345 citations by 1977 authors

Google Scholar citations: All: h-index 51, i10-index 142, 22453 citations; since 2011: h-index 29, i10-index 80, 6643 citations

GRANTS

- Agence Nationale de la Recherche, France, *Unfold Mechanics Network*, 2016-17.
- CAPES Brazilian grant, *Ciência sem fronteiras*, 2015.
- Megagrant of the Russian Federation 2011-2013.
- Fonds national de recherche suisse, member of the team of the twelve year SwissMAP grant, 2014–2026.
- Fonds national de recherche suisse, Bernoulli Center grants: 2002-15 (one annual and six biennial grants).
- Fonds national de recherche suisse, personal research grants: 1998-00, 2000-02 (two grants), 2002-04, 2003-05, 2005-07 (two grants), 2007-09, 2008-10, 2009-11, 2010-12, 2012-15.
- Swiss SCOPES grants: 2001-04, 2005-08.
- Swiss SCIEX grant: 2011-12.
- Sixth Framework EU Marie Curie RTN Grant *European Network in Geometry, Mathematical Physics, and Applications*, ENIGMA, 2004-2007, as member of the Swiss node
- Fifth Framework EU Marie Curie RTN Grant *Mechanics and Symmetry in Europe*, MASIE, 2000-04, as node coordinator
- NSF/USA: 1981-83, 1983-87 (NSF postdoc), 1987-90, 1990-92, 1992-95, 1995-98, 1998-01
- DOE/USA: 1992-95, 1995-99
- ONR/USA: 1992-95
- ARO-URI/USA: 1987-88
- AFOSR-DARPA/USA: 1987-89

PH.D. AND POSTDOCTORAL SUPERVISION

Postdoctoral Fellows: Zhang-Ju Liu (Fall 1990), Debra Lewis (1990-1992), Eugene Lerman (1992-1993), Gerardina Derks (1993-94), Francesco Fassò (1995-97), Myung-Ho Kim (1997), Rafael Hernandez (1997-98), Ian Marshall (1998-04), Juan-Pablo Ortega (1998-01), Camil Petrescu (1999-00), Marco Castrillón-López (2000-01), Marius Buliga (2000-06), Vlad Timofte (2000-04), Guido Blankenstein (2001-02), Olivier Pantz (2000-01), Adriana Valentina Busuioc (2001-03), Oliver Maspfuhl (2001-04), Gregoire Loeper (2004-06), Anna Lyakhovskaya (2004-07), Sergiy Vasylykevych (2004-08), Miguel Rodriguez-Olmos (2004-08), Alice Barbara Tumpach (2005-07), Luis Garcia Naranjo (2007-2011), Mathieu Molitor (2007-08), Simon Hochgerner (2007-11), Cesare Tronci (2008-12), Feride Tiglay (2008-10), Silvia Sabattini (2009-13), Dmitry Pavlov (2009-13), Alina Dobrowska (2011-12), Wengcheng Li (2011-12), Fengbin Chen (2011-12), Sonja Hohloch (2012-15), Christophe Wacheux (2013-15), Ünver Ciftci (2014-15), Tobias Diez (2015).

Total: 36 postdocs

Ph.D. theses supervised: Michael O. Melko (1989): “On the Focal Variety of Real Stiefel Manifolds” (joint with Wu Yi Hsiang), Patrick Tantalo (1993): “Geometric Phases for the Free Rigid Body with Variable Inertia Tensor”, Brian Sutin (1993): “Nonlinear Global Stability of the $N = 1$ Polytrope”, Mittaguntha Giriya (1994): “Reduced Spaces for Coupled Rigid Bodies and Their Relation to Relative Equilibria”, Octavian Popp (1995): “Double Bracket Periodic Toda Lattice and the Projection of Limit Invariant Tori”, Juan–Pablo Ortega (1998): “Symmetry, Reduction, and Stability in Hamiltonian Systems”, Shinar Kouranbaeva (1999): “Geometry and Analysis of the Camassa–Holm Equation. Variational Approach to Second–Order multisymplectic Field Theory”, Tanya Schmäh (2001): “Symmetries of Cotangent Bundles”, Petre Birtea (2003): “Momentum Maps and Applications”, Aida Timofte (2004): “Existence, Uniqueness and Regularity of Solutions for a Thermomechanical Model of Shape Memory Alloys”, Răzvan Tudoran (2005): “Symmetry Breaking in Mechanical Systems”, Oana Drăgulete (2007): “Some Applications of Symmetries in Differential Geometry and Dynamical Systems”, François Gay-Balmaz (2009): “Infinite Dimensional Geodesic Flows and the Universal Teichmüller space”, Madeleine Jotz (2011) “Dirac Group(oid)s and their homogeneous spaces”, François Demoures (2012) “Lie Group and Lie Algebra Variational Integrators for Flexible Beam and Plate in \mathbb{R}^3 ”.

Total: 14 Ph.D. students

Theses committees: Adolfo Rumbos (UCSC, 1990), Richard Libby (UCSC, 1991), Stephen Robinson (UCSC, 1991), Xiang Fu (UCSC, 1991), Susan Tappero (UCSC, 1992), Bobette Thorsen (UCSC, 1992), Gerardina Derks (Univ. of Twente, Enschede, Holland, 1992), Ionel Ciuperca (Univ. Paris Sud, Orsay, 1995), Laurent Guieu (Univ. de Provence, Luminy, 1995), Kurt Ehlers (UCSC, 1995), Carl Haverl (UCSC, 1996), Mark Hoyle (UCSC, 1998), Pierre Sleewagen (Université Libre de Bruxelles, 1999), Robert Joosten (EPFL, 2000), Olivier Mermoud (EPFL, 2000), Rareş Dianu (EPFL, 2000), Marcel Steiner (EPFL, 2000), Guido Blankenstein (Univ. of Twente, Enschede, Holland, 2001), Costin Boldea (Université Pierre et Marie Curie, Paris, 2002), Nadia Chouaieb (EPFL, 2003), Oliver Maspfuhl (Paris VII, 2003), Juan-Pablo Ortega (Habilitation, Institut Non Linéaire de Nice, 2003), Frédéric Laurent (Institut Non Linéaire de Nice, 2003), Markus Sköldstam (Licentiatúra, Linköping Universitet, Sweden, 2004), Víctor Planas-Bielsa (Institut Non Linéaire de Nice, 2004), Miguel Rodriguez-Olmos (Instituto Superior Técnico, Lisboa, 2004), Hicham G. Gebran (EPFL, 2005), Barbara Tumpach (Ecole Polytechnique de Paris, 2005), Fabien Pellegrini (Université de la Méditerranée, Aix-Marseille II, Luminy, 2005), Mathieu Molitor (Université Paul Verlaine, Metz, 2007), Marius Buliga (Habilitation, Université des Sciences et Technologies de Lille), Ludovica Cotta-Ramusino (EPFL, 2008), François Genoud (EPFL, 2008), Camille Laurent-Gengoux (Habilitation, Université de Poitiers, 2009), Philippe Henry (EPFL, 2010), Nils Rutstam (Linköping Universitet, Sweden, 2010 and 2013), Cédric Martínez Campos (Universidad Autónoma de Madrid, 2010), Christophe Wacheux (Université de Rennes I, 2013), Irina Dvydnekova (Université de Genève, 2014), Adriana Valentina Busuioc (Habilitation, Université Jean Monnet, Institut Camille Jordan, Saint Etienne, 2014), Sonja Hohloch (Habilitation, Université de Besançon, 2014), Florie-Anne Baugé (UPMC Sorbonne Universités and IRCAM Centre Pompidou, 2015) .

Total: 42 doctoral and habilitation committees

EDITORIAL ACTIVITY

A. Volumes

Turbulence Seminar, Berkeley, 1976–1977, Springer Lecture Notes in Math. **615** (with P. Bernard)

The Geometry of Hamiltonian Systems, Springer Berkeley MSRI Series **22**, 1991

Mechanics Day, AMS Fields Institute Series **7**, 1995 (with P.S. Krishnaprasad and W. Shadwick)

Northern California Symplectic Geometry Seminar, Amer. Math. Soc. Translations, Series 2, **196**, 1999 (with Y. Eliashberg, D. Fuchs, A. Weinstein)

The Breadth of Symplectic Geometry. Festschrift in Honor of Alan Weinstein, Progress in Mathematics, **232**, Birkhäuser, Boston, 2004 (with J.E. Marsden)

Geometric Mechanics and Symmetry: The Peyresq Lectures, London Mathematical Society Lecture Series **306**, Cambridge University Press, 2005 (with J.A. Montaldi)

B. Journals

Advances in Applied Mathematics, 2009–present
Algebras, Groups, and Geometries, 1988–1991
Analele Universității Timișoara, 1991–present
Annals of Global Analysis and Geometry, 1994–2015
Carpathian Journal of Mathematics, 2001–2010
Differential Geometry and its Applications, 1999–present
Dynamics of PDE, 2004–present
International Journal of Geometric Methods in Modern Physics, 2003–2015
Journal of Geometric Mechanics, 2009–present
Journal of Nonlinear Science, senior editor, 2008–present
Numerical Algebra, Control and Optimization, 2010–present
Revista de la Unión Matemática Argentina, 2011–present
Symmetry, Integrability, and Geometry: Methods and Applications, 2007–present

C. Book Series

AMS Mathematical Surveys and Monographs, 1995–2004, managing editor 1996–2001
Advances in Mechanics and Mathematics, Kluwer/Springer, 2003–present

CONFERENCES AND PROGRAMS ORGANIZED

Coorganizer of the conference *Integrable Systems*, Congress Stefano Franscini, Ascona, Switzerland, June 19–24, 2016
Coorganizer of the *UK-Japan Winter School*, Imperial College, London, UK, January 4–7, 2016.
Coorganizer of the conference *Toric Topology, Number Theory and Applications*, Far Eastern Branch of the Russian Academy of Sciences, Institute of Applied Mathematics, Khabarovsk Division, Russia, September 6–12, 2015
Coorganizer (with M. Chaperon, V.V. Kozlov, A. Weinstein) of the conference *Geometry and Mechanics*, International Conference in honor of Charles-Michel Marle 80th birthday, Institut Henri Poincaré, November 22–24, 2014
Coorganizer (with V. Buchstaber, T. Panov) of the Mathematical Sciences Program Conference: *Toric Geometry and Integrable Systems*, October 2014, Skolkovo Institute of Science and Technology, Moscow Region, Russia
Coorganizer (with A. Pelayo, H. Bursztyn, R. Loja Fernandes) of the Bernoulli Center Conference: *Trends in Geometry, Analysis, and Algebra: Conference in Honor of Alan Weinstein*, 22-26/07/2013
Coorganizer (with D.-E. Chang, D.D. Holm, G. Patrick) of a month long research month and conference in honor of the memory of Jerrold Marsden, July 2012, Fields Institute, Toronto
Coorganizer (with A. Bloch and J. Scheurle) of the Oberwolfach workshop *Applied Dynamics and Geometric Mechanics*, August 14-20, 2011
Coorganizer (with K.-H. Neeb and A. Pianzola) of the Oberwolfach workshop *Infinite Dimensional Lie Theory*, November 14-20, 2010
Coorganizer of the biennial conference *Poisson 2008*, EPFL, Lausanne, 07/07/08–11/10/08
Coorganizer of the conference *Geometry of Integrable Systems*, Hanoi University of Education, Vietnam, 09/04/07 – 13/04/07
Coorganizer of the program *Asymptotic Behavior in Fluid Mechanics*, Bernoulli Center, EPFL, 07/06 – 12/06
Coorganizer of the Summer School and Conference on Poisson Geometry, ICTP, Trieste, July 2005
Coorganizer of the symposium *Lie Groups: from Topology to Arithmetic* in memory of Armand Borel, Zürich and Geneva, June 29 - July 6, 2005
Main organizer of the program *Geometric Mechanics*, Bernoulli Center, EPFL, 07/04 – 12/04
Coorganizer of the Euroconference *MASIE 2004*, Bernoulli Center, EPFL
Coorganizer of the program *Geometry of the Moment Map*, E. Schrödinger Institute, 08/03 – 11/03
Coorganizer of the Euroconference *PQR 2003*, Université Libre de Bruxelles, 06/03
Coorganizer of the Bernoulli Center workshop *Mathematical Problems in Hydrodynamics*, 04/03
Coorganizer of the E. Schrödinger conference *Symplectic Geometry*, August 2003

Coorganizer of Fields Institute Conference *Global Analysis and Geometric Mechanics*, August 2002
Special Session Organizer at the Annual AMS-MAA Joint Meeting, Baltimore, MD, January 1998
Coorganizer of Fields Institute *Arnoldfest*, June 1997
Minisymposium coorganizer, *Third International Congress for Industrial and Applied Mathematics*,
Hamburg, Germany, July 1995
Minisymposium coorganizer, *Cornelius Lanczos Centennial Celebration*, North Carolina State
University, Raleigh, NC, December, 1993
Coorganizer of MSRI Berkeley Conference *Hamiltonian Mechanics*, June, 1989
Coorganizer of MSI Cornell workshop *Geometric Phases in Mechanics*, October, 1989

REVIEWING SERVICE

Symmetries for Dynamical and Hamiltonian Systems by H.M.M. ten Eikelder, CWI Tract 17,
Matematisch Centrum, Amsterdam, 1985, SIAM Review **29**, 1987, 165-166
Symplectic Geometry and Analytic Mechanics by P. Libermann and C.M. Marle, D. Reidel, 1987,
American Scientist, 1990
Convexity Methods in Hamiltonian Mechanics by I. Ekeland, Ergebnisse der Mathematik und ihrer
Grenzgebiete, 3. Folge, Band 19, Springer Verlag, 1990, SIAM Review **34**, 1992, 343-345
Tensors and Manifolds with Applications to Mechanics and Relativity by R. Wasserman, Oxford
University Press, 1992, SIAM Review, 1993

ADMINISTRATIVE SERVICE

A. Academic

1985-86, Applied Mathematics Graduate Committee, University of Arizona, Tucson
1986-87, Pure Mathematics Graduate Committee, University of Arizona, Tucson
1987-88, Vice Chair for Recruiting, Department of Mathematics, UC Santa Cruz
1987-98, Executive Committee, Nonlinear Sciences Organized Research Unit, UC Santa Cruz
1988-89, Natural Sciences Division Space Committee, UC Santa Cruz
1988-89, Chancellor's Search Committee for the Dir. Inst. Nonlinear Sciences, UC Santa Cruz
Fall 90, Chair, Department of Mathematics, UC Santa Cruz
Spring 91, Vice Chair for Graduate Studies, Department of Mathematics, UC Santa Cruz
1991-93, Campus Committee on Planning and Budget, UC Santa Cruz
1995-96, Chair, Analysis Hiring Committee, Department of Mathematics, UC Santa Cruz
1995-96, Divisional CAP Committee, Department of Mathematics, UC Santa Cruz
1997-98, Vice Chair for Graduate Studies, Department of Mathematics, UC Santa Cruz
1997-98, Applied Mathematics Hiring Committee, UC Santa Cruz
1999-01, Vice president, Commission d'enseignement, EPFL
1999-11, Campuswide Ph.D. Prize Committee, EPFL
2000-06, Mathematics Library Manager, EPFL
2000-01, Campus Committee on Planning and Budget, UC Santa Cruz
2005-07, Hiring Committee, Eidgenössische Technische Hochschule, Zürich
2006-07, Hiring Committee, Université de Genève
2006-12, Hiring Committee EPFL
2009-10, Hiring Committee, Eidgenössische Technische Hochschule, Zürich
2002-14, Cofounder and Founding Director, Bernoulli Center, EPFL
2014-15, Cofounder and Deputy Director, Mathematical Sciences Program, Skolkovo Institute
of Science and Technology, Moscow Region, Russia
2016-present, Deputy Dean of the School of Mathematics for International Affairs, Shanghai Jiao Tong
University

B. Professional Organizations

Member: American Mathematical Society, Société Suisse de Mathématiques, European Mathematical
Society, Société Mathématique de France, American-Romanian Academy of Arts and Sciences
1996-01, American Mathematical Society Council
2005-present, International Scientific Board of the *Simion Stoilow* Institute of Mathematics of the

Romanian Academy, București, Romania
2006-13, International Scientific Board of the *Normal Superior School*, București, Romania
2007-present, Board of Trustees, Institute *Henri Poincaré*, Paris
2009-13, American-Romanian Academy of Arts and Sciences, Executive Committee, Counselor
2012-15, Heidelberg Laureate Forum, Mathematics Grant Panel, Germany
2012-16, Sonderforschungsbereich Mathematics Grant Panel, Germany
2014-17, European Research Council Mathematics Grant Panel

PERSONAL

Born, March 18, 1950, married, two sons, one daughter
Languages: English, German, French, Romanian (fluent), Spanish, Portuguese (advanced), Russian (basic), Chinese Mandarin (beginner)
Telephone (mobile): +41 79 875-2085, +86 152-2190-4527
email: tudor.ratiu@epfl.ch, ratiu@sjtu.edu.cn

PUBLICATIONS

1. Ratiu, T.S. and Reghiş, M. [1972] Completeness and projective limits of metric spaces, *Analele Univ. Timisoara* bf 10, 81–88.
2. Ratiu, T.S. and Reghiş, M. [1972] On the completeness of uniform Schwartz-spaces, *Analele Univ. Timisoara* **10**, 197–206.
3. Negoită, C.V., Ralescu, D., and Ratiu, T.S. [1977] Relations on monoids and realization theory for dynamic systems, in *Modern Trends in Cybernetics and Systems* (J. Rose and C. Bilcin, Eds.), Springer–Verlag (1977).
4. Ratiu, T.S. [1977] Bifurcation, semiflows, and Navier-Stokes equations, Appendix to Lecture I in *Turbulence Seminar, Berkeley 1976-77* (P. Bernard and T.S. Ratiu, eds.), Springer Lecture Notes **615**, 23–35.
5. Ratiu, T.S. [1979] On the smoothness of the time t-map of the KdV equation and the bifurcation of the eigenvalues of Hill’s operator, in *Global Analysis* (M. Grmela and J. Marsden, eds.), Springer Lecture Notes **755**, 284–294.
6. Ratiu T.S. [1980] Involution theorems, in *Geometric Methods in Mathematical Physics* (G. Kaiser and J. Marsden, eds.), Springer Lecture Notes **775**, 219–257.
7. Ratiu, T.S. [1980] The motion of the free n-dimensional rigid body, *Indiana Univ. Math. Journ.* **29**, 609–629.
8. Ratiu, T.S. [1981] The C. Neumann problem as a completely integrable system on an adjoint orbit of a Lie algebra, *Trans. Amer. Math. Soc.* **264**, 321–329.
9. Ratiu, T.S. and Schmid, R. [1981] The differentiable structure of three remarkable diffeomorphism groups, *Math. Zeitschrift* **177**, 81–100.
10. Ratiu, T.S. [1981] Euler-Poisson equations on Lie algebras and the N-dimensional heavy rigid body, *Proc. Natl. Acad. Sci. USA* **78**, 1327–1328.
11. Ratiu, T.S. [1982] Euler-Poisson equations on Lie algebras and the N-dimensional heavy rigid body, *Amer. Journ. Math.* **104**(2), 409–448.
12. Ratiu, T.S. and van Moerbeke, P. [1982] The Lagrange rigid body motion, *Ann. Inst. Fourier, Grenoble* **32**, 211–234.
13. Ratiu, T.S. [1982] The Lie algebraic interpretation of the complete integrability of the Rosochatius system, in *Mathematical Methods in Hydrodynamics and Integrability in Dynamical Systems (La Jolla Institute, 1981)*, AIP Conference Proceedings **88**, 109–116.
14. Kupershmidt, B.A. and Ratiu, T.S. [1983] Canonical maps between semidirect products with applications to elasticity and superfluids, *Comm. in Math. Phys.* **90**(2), 235–250.
15. Holm, D.D., Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1983] Nonlinear stability conditions and a priori estimates for barotropic hydrodynamics, *Phys. Lett.* **98A**, 15–21.
16. Marsden, J.E., Weinstein, A., Ratiu, T.S., Schmid, R., and Spencer, R. [1983] Hamiltonian systems with symmetry, coadjoint orbits and plasma physics, in *Proceedings of the IUTAM-ISIMM Symposium on Modern Developments in Analytical Mechanics, Academy of Sciences of Turin, Turin, June 7-11, 1982, Atti della Accademia della Scienze di Torino*, Supplemento al Vol. **117**, 289–340.
17. Flaschka, H., Newell, A.C., and Ratiu, T.S. [1983] Kac-Moody Lie algebras and soliton equations II. Lax equations associated with $A_1^{(1)}$, *Physica D* **9**, 300–323.
18. Flaschka, H., Newell, A.C., and Ratiu, T.S. [1983] Kac-Moody Lie algebras and soliton equations III. Stationary equations associated with $A_1^{(1)}$, *Physica D* **9**, 324–332.

19. Wan, Y.H., Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1983] Nonlinear stability of circular vortex patches, *Center for Pure and Applied Mathematics* **162**, University of California, Berkeley.
20. Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1984] Semidirect products and reduction in mechanics, *Trans. Amer. Math. Soc.* **281**, 147–177.
21. Holm, D.D., Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1984] Stability of rigid body motion using the energy-Casimir method, in *Fluids and Plasmas: Geometry and Dynamics* (J. Marsden, ed.) *Cont. Math.* **28**, 15–20.
22. Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1984] Reduction and Hamiltonian structures on duals of semidirect product Lie algebras, in *Fluids and Plasmas: Geometry and Dynamics* (J. Marsden, ed.) *Cont. Math.* **28**, 55–100.
23. Montgomery, R., Marsden, J.E., and Ratiu, T.S. [1984] Gauged Lie Poisson structures, in *Fluids and Plasmas: Geometry and Dynamics* (J. Marsden, ed.) *Cont. Math.* **28**, 101–114.
24. Abarbanel, H.D.I., Holm, D.D., Marsden, J.E., and Ratiu, T.S. [1984] A Richardson number criterion for shear stratified Boussinesq flow, *Phys. Rev. Lett.* **52**, 2352–2355.
25. Adams, M., Ratiu, T.S., and Schmid, R. [1984] The group of Fourier integral operators as a symmetry group, in *14-th International Colloquium on Group Theoretical Methods in Mathematical Physics, College Park, Maryland, 21-25 May 1984* (W.W. Zachary, ed.), World Scientific Publ., 246–249.
26. Ratiu, T.S. [1985] Haretu’s contribution to the N-body problem, *Libertas Mathematica* **5**, 1–7.
27. Holm, D.D., Marsden, J.E., Ratiu, T.S., and Weinstein, A. [1985] Nonlinear stability of fluid and plasma equilibria, *Physics Reports* **123**, 1–116.
28. Adams, M., Ratiu, T.S., and Schmid, R. [1985] The Lie group structure of diffeomorphism groups and invertible Fourier integral operators with applications, in *Infinite Dimensional Groups with Applications* (V. Kac, ed.) Springer MSRI Berkeley Series **4**, 1–69.
29. Lewis, D.K., Marsden, J.E., Montgomery, R., and Ratiu, T.S. [1986] The Hamiltonian structure for dynamic free boundary value problems, *Physica D* **18**, 391–404.
30. Adams, M., Ratiu, T.S., and Schmid, R. [1986] A Lie group structure for pseudodifferential operators, *Math. Annalen* **273**, 529–551.
31. Holm, D.D., Marsden, J.E., and Ratiu, T.S. [1986] Nonlinear stability of the Kelvin-Stuart cat’s eyes flow, in *Nonlinear Systems of Partial Differential Equations in Applied Mathematics* (B. Nicolaenko, ed.), *Lectures in Applied Mathematics* **23**, 171–186.
32. Marsden, J.E. and Ratiu, T.S. [1986] Reduction of Poisson manifolds, *Lett. Math. Phys.* **11**, 161–170.
33. Lewis, D.K., Marsden, J.E., and Ratiu, T.S. [1986] Formal stability of liquid drops with surface tension, in *Perspectives in Nonlinear Dynamics* (M. F. Schlesinger, R. Cawley, A. W. Saenz, W. W. Zachary, eds.) World Scientific Publ., 71–83.
34. Holm, D.D., Marsden, J.E., and Ratiu, T.S. [1986] The Hamiltonian structure of continuum mechanics in the Lagrangian, inverse Lagrangian, spatial, and convective representations, *Seminaire de Mathematiques Superieures*, Les Presses de l’Université de Montréal, **100**, 11–122.
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227. Chechkin, G.A., Ratiu, T.S., Romanov, M.S., and Samokhin, V.N. [2016] Existence and uniqueness theorems for the full three-dimensional Ericksen-Leslie system, submitted.
228. Bloch, A.M., Gay-Balmaz, F., and Ratiu T.S. [2016] The geometric nature of the Flaschka transformation, submitted.
229. Cruzeiro, A.B., Holm, D.D., and Ratiu, T.S. [2016] Momentum maps and stochastic Clebsch action principles, submitted.
230. Demoures, F., Gay-Balmaz, F., Desbrun, M., Ratiu, T.S., and Aragón, A. [2016] A multisymplectic integrator for elastodynamic frictionless impact problems, submitted.
231. Chen, X., Cruzeiro, A.B., and Ratiu, T.S. [2016] Constrained and stochastic variational principles for dissipative equations with advected quantities, submitted.
232. Ratiu, T.S., Rodríguez-Olmos, M., and Teixidó-Román, M. [2016] The fast-superfast transition in the sleeping Lagrange top, preprint.

BOOKS

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2. *Elements of Local Analysis* (in Romanian), with M. Craioveanu, two volumes, Mathematical Monographs Nos. 6 and 7, University of Timișoara, Vol. 1, 164 pages; Vol. 2, 140 pages, 1976.

3. *Foundations of Mechanics*, R. Abraham and J. Marsden, assistant author, second edition, Addison-Wesley, 806 pages, 1978. Reprinted with comments and corrections, AMS Chelsea, 2008.
4. *Manifolds, Tensor Analysis, and Applications*, with R. Abraham and J.E. Marsden, Addison-Wesley, 582 pages, 1983, second enlarged edition, Applied Mathematical Sciences **75**, Springer Verlag, 622 pages, 1989.
5. *Introduction to Mechanics and Symmetry*, with J.E. Marsden, Texts in Applied Mathematics **17**, Springer Verlag, 500 pages, 1994, second enlarged and revised edition, 582 pages, 1999, with Internet Supplement, 89 pages, <http://www.cds.caltech.edu/marsden/books/node18.html> and Solutions Manual.
6. *Einführung in die Mechanik und Symmetrie*, with J.E. Marsden, Springer-Verlag, Berlin, 1999, German translation of the previous book.
7. Chinese translation of *Introduction to Mechanics and Symmetry*, with J.E. Marsden, Fudan University Press, 2006.
8. *Momentum Maps and Hamiltonian Reduction*, with J.-P. Ortega, Progress in Mathematics, **222**, 531 pages, Birkhäuser-Verlag, Boston, 2004.
9. *Symplectic Reduction by Stages*, with J.E. Marsden, G. Misiolek, M. Perlmutter, and J.-P. Ortega, Lecture Notes in Mathematics, **1913**, Springer-Verlag, 2007.
10. *Mechanics and Symmetry: Reduction Theory*, in preparation.
11. *Geometric Fluid Mechanics*, with F. Gay-Balmaz, in preparation.

MAIN INVITED PRESENTATIONS SINCE 1984

1. January 1984: MSRI Berkeley seminar: *The role of Kac-Moody Lie algebras in completely integrable p.d.e.'s*.
2. April-May 1984: A minicourse (5 lectures) at the Max-Planck Institute for Mathematics, Bonn, Germany, on geometric mechanics.
3. May 1984: Mathematics Institute, Oberwolfach, W. Germany, Conference on integrable systems: *Integrability and Kac-Moody Lie algebras*.
4. June 1984: Durham Symposium on Fluid Dynamics and Bifurcation Theory, England: *Nonlinear stability of the Kelvin-Stuart cat's eyes flow*.
5. November 1984: Colloquium at the Department of Mathematics of the University of Arizona, Tucson: *Nonlinear stability in Hamiltonian systems*.
6. Various other talks in seminars at U. C. Berkeley and U. A. Tucson on symplectic geometry, mechanics, stability, integrability (4 talks).
7. July-August 1985: Main invited speaker at a three-week workshop at the Center for Pure and Applied Mathematics, University of Montreal, Canada (5 lectures) dealing with complete integrability, reduction, and Hamiltonian mechanics.
8. November 1985: Colloquium at the Department of Mathematics, University of California, Berkeley: *What is new in geometric mechanics and integrable systems*.
9. Various other talks at U. C. Berkeley and U. A. Tucson seminars on current research in Poisson geometry, fluid dynamics, and bifurcations (6 talks).
10. March 1986: Colloquium at the Department of Mathematics, University of California, Santa Cruz: *Integrable systems, Lie theory, and singularities*.

11. July 1986: Three talks on Poisson reduction in the Nonlinear Dynamics Seminar, University of California, Berkeley.
12. April 1987: Non-linear Sciences Seminar, University of California, Santa Cruz: *Stability and bifurcation in free boundary fluid problems.*
13. June 1987: Joint AMS - SIAM Conference, Boulder, Symplectic geometry and celestial mechanics: *Integrable systems and symplectic geometry.*
14. June 1987: Mathematics Institute Oberwolfach, W. Germany, Hamiltonian mechanics and bifurcation theory: *Stability and bifurcation in free boundary fluid flow.*
15. July 1987: Joint AMS - SIAM Conference, Boulder, The connection between finite and infinite dimensional dynamical systems: *Stability and bifurcation of the two-dimensional rigidly rotating liquid drop.*
16. January 1988: Lake Arrowhead Nonlinear Conference: *Stability of self-gravitating disks.*
17. July 1988: Group Theoretical Methods in Mathematical Physics, Athens Georgia: *Lie group methods in the stability and bifurcation analysis of free boundary fluids.*
18. August 1988: Joint AMS-SIAM Conference on Control Theory and Multibody Systems, Bowdoin College: *Remarks on Berry's Phase.*
19. October 1988: MSRI, Berkeley: *Geometric phases in mechanics.*
20. December 1988: Non-linear Sciences Seminar, University of California at Santa Cruz: *Geometric theory of the classical Berry phase.*
21. June 1989: Seminaire Sud-Rhodanien, MSRI, Berkeley: *A new formulation of the generalized Toda equation and the phase space geometry via the momentum map.*
22. September 1989: Colloquium, Cornell University: *The geometry of diffeomorphism groups and Teichmüller theory.*
23. October 1989: MSI Cornell workshop on "Geometric Phases in Mechanics": *Berry Phases and Hannay angles in Mechanics.*
24. October 1989: CRM Montreal conference "Hamiltonian Systems, Transformation Groups and Inverse Spectral Problems": *Bifurcation of equilibria in the heavy top equations.*
25. December 1989: CUNY Graduate Center, D. Sullivan Colloquium: *On the Weil-Petersson metric and universal Teichmüller space.*
26. January 1990: UCSC - SJS Winter School in Nonlinear Physics: *Geometric phases through examples.*
27. February 1990: Stanford Tricampus Differential Geometry Conference: *Convexity and integrable systems.*
28. March 1990: Applied Mathematics Seminar, University of Texas at Austin: *Geometric Phases and holonomy in theoretical physics.*
29. May 1990: Stanford, UCB-UCSC-Stanford Symplectic Geometry Seminar: *Classification of bifurcation diagrams for the heavy top.*
30. June 1990: Université des Sciences et Techniques du Languedoc, Montpellier, France: three talks on convexity, the Toda Lattice, and integrability.
31. June 1990: Seminaire Sud-Rhodanien, Colloquium in honor of J.-M. Souriau's 60-th birthday, Université de Provence, Aix-en-Provence, France: *Convexity and integrability.*

32. June 1990: Conference on elasticity and control, Mathematisches Institut, Oberwolfach, Germany: *Linearization of Hamiltonian systems*.
33. July 1990: Université de Paris, Orsay, France, Colloquium: *The Toda lattice and integrability*.
34. July 1990: Institut Pierre et Marie Curie, Paris, France, Symplectic geometry seminar: *Geometric Phases in classical mechanical systems*.
35. July 1990: Université des Sciences et Techniques du Languedoc, Montpellier, France: Three talks dealing with Berry phases and Hannay angles.
36. March 1991: Ohio State University Mathematics Institute, Colloquium: *Phases in classical mechanics*.
37. June 1991: Mathematisches Institut der Universität Hamburg, Colloquium: *On the bifurcation of equilibria in the heavy top equations*.
38. July 1991: Centre de Recherches Mathématiques, Luminy, France, Conference in honor to the memory of J.-L. Verdier: *On the relationship between convexity and integrability*.
39. July 1991: AMS-SIAM Conference on field theory, Seattle: *A maximal torus in the group of area-preserving diffeomorphisms of a finite cylinder*.
40. August 1991: Institute of Theoretical Physics, UC Santa Barbara: *Geometric methods in the non-linear stability analysis of fluids*.
41. October 1991: International Symposium on Hamiltonian Systems and Celestial Mechanics, Guanajuato, Mexico: *Stability and instability via energy and dissipation methods*.
42. November 1991: Institute of Theoretical Physics, UC Santa Barbara, Conference on topological fluid dynamics : *Instabilities via damping*.
43. January 1992: Annual AMS Meeting, Baltimore, invited special session speaker : *Dissipation induced instabilities*.
44. April 1992: Fields Institute for Research in Mathematical Sciences, Waterloo, Canada: *Geometric Phases in Mechanics and Stability and instability methods based on symplectic geometry*.
45. April 1992: Fields Institute for Research in Mathematical Sciences, Waterloo, Canada, Workshop on gradient systems, control and convexity, *Convexity in finite and infinite dimensions*.
46. April 1992: Stanford, UCB-UCD-UCSC-Stanford Symplectic geometry seminar: *Instabilities induced by dissipation mechanisms*.
47. April 1992: University of Kansas, Lawrence, Colloquium: *The Toda lattice and convexity*.
48. April 1992: University of Kansas, Lawrence, Geometry seminar: *Symplectic geometry and instabilities of Hamiltonian systems*.
49. June 1992: Beijing University, China, Differential geometry colloquium: *Convexity in Hamiltonian systems* (two lectures).
50. June 1992: 25-th conference "Differential Geometric Methods in Mathematical Physics" Nankai Institute of Mathematics, Tianjin University, China: *Instability in Hamiltonian systems*.
51. June 1992: College de France, Seminaire de Mecanique de l'Université de Paris 7: *Convexity in infinite dimensions*.
52. July 1992: Université de Paris, Orsay, Colloque de Mathématiques Appliquées: *Normal forms and instabilities*.

53. July 1992: AMS-SIAM Conference in Applied Mathematics, Fort Collins, Colorado: *Instability and dissipation*.
54. August 1992: Minicourse lecturer at the MSRI graduate student summer school in UCLA: *The dynamics of Hamiltonian systems*.
55. September 1992: Minicourse lecturer at the workshop "Systèmes hamiltoniens intégrables et algèbres de Lie", Université de Montpellier, France: *Convexité et Intégrabilité* (5 lectures).
56. September 1992: Université de Provence, Marseille, St.-Charles: *Les Formes normales dans l'étude de stabilité hamiltonienne*, two talks in the Souriau Seminar.
57. November 1992: Regional AMS Meeting, invited special session speaker, University of Southern California: *Instability mechanisms in Hamiltonian dynamics*.
58. December 1992: Colloquium, Department of Applied Mathematics, University of Twente, The Netherlands: *Geometric methods in the stability analysis of relative equilibria in Hamiltonian systems*.
59. February 1993: Pattern Formation and Symmetry Breaking in PDE's, Fields Conference, Waterloo, Canada: *Symmetry breaking and stability*.
60. March 1993: Rio de Janeiro Workshop on Geometric Mechanics, IMPA: *Convexity for diffeomorphism groups*.
61. March 1993: Differential Geometry Seminar, IMPA, Rio de Janeiro: *Normal forms and stability for Hamiltonian systems*.
62. June 1993: Séminaire Sud-Rhodanien, Lyon, France: *Convexity in infinite dimensional Lie algebras*.
63. June 1993: Colloquium, University of Vienna, Austria: *Dissipation and instability*.
64. July 1993: Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria: *The Schur-Horn-Kostant Theorem for the diffeomorphism group of the annulus* (2 talks).
65. July 1993: Polytechnic Institute, Vienna, Austria: *Geometric methods for stability analysis*.
66. July 1993: Mathematisches Institut, Oberwolfach, Germany: *Lie-Poisson induced instability*.
67. August 1993: Second International Congress on Nonlinear Mechanics, Beijing, China: *Dissipation induced instability*.
68. September 1993: Colloquium, Hong-Kong University of Science and Technology: *A convexity theorem for the area preserving diffeomorphism group of the annulus*.
69. October 1993: Nonlinear dynamics seminar UC Berkeley: *Hamiltonian structures, stability, and bifurcations for free boundary value fluids*.
70. November 1993: Pacific Northwest Geometry Seminar: *The Kostant convexity theorem for the diffeomorphism group of the annulus*.
71. January 1994: Nonlinear Dynamics Seminar, UC Berkeley: *The dynamics of dissipative systems*.
72. February 1994: Colloquium, Mathematics Department, UC Berkeley: *On the geometry of Brockett's double bracket equation and the Toda lattice*.
73. February 1994: Colloquium, Nonlinear Dynamics and Control, California Institute of Technology: *The double bracket equation and its applications*.
74. March 1994: Miezozdroje, Poland, Conference on minimal surfaces and integrable systems: *Convexity for infinite dimensional Lie groups*.

75. March 1994: MSRI Workshop on geometry and control: *The double bracket equation*.
76. April 1994: MSRI Applied Mathematics Seminar: *Dissipation induced instabilities*.
77. July 1994: Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria: *Geometric methods in the stability analysis of Hamiltonian systems* (2 talks).
78. July 1994: University of Timisoara, Romania, The 24-th National Conference of Geometry and Topology: *Liapunov stability of relative equilibria*.
79. October 1994: Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria: *Geometric methods in the stability analysis of Hamiltonian systems* (2 talks).
80. September 1994: Cocoyóc, Mexico, Second International Symposium on Hamiltonian Systems and Celestial Mechanics: *The geometry of dissipation induced instabilities*.
81. September 1994: Universidad Autónoma Metropolitana, Iztapalapa, Mexico City, Workshop on Celestial Mechanics: *Symplectic methods in convex analysis*. (2 talks).
82. October 1994: Institut Henri Poincaré, Séminaire de Mécanique de l'Université de Paris 7, France: *Stability and instability by symplectic methods* (2 talks).
83. November 1994: Univeristé de Lille, France, Conference on toric varieties: *Convexity in the generalized open Toda lattice*.
84. January 1995: Séminaire Groupes Quantiques, Ecole Normale Supérieure – Ecole Polytechnique, Paris, France: *Théorème de Kirwan pour les groupes de Poisson–Lie*.
85. January 1995: Colloquium IHES: *Lie theory for the group of symplectomorphisms of the annulus*.
86. February 1995: Colloquium, University of Haifa, Israel: *Lie theoretic convexity in infinite dimensions*.
87. February 1995: Weizmann Institute seminar, Israel: *Convexity of momentum maps and Symplectic methods in stability theory*.
88. February 1995: Colloquium, Université Claude Bernard, Lyon, France: *Théorèmes de convexité nonlineaires*.
89. March 1995: PDE seminar, École Normale de Cachan, Paris, France: *Méthodes géométriques dans l'étude de stabilité de Liapunov pour les equations d'évolution conservatives*.
90. March 1995: International Congress for Dynamical Systems, Montevideo, Uruguay: *Liapunov stability of relative equilibria via symplectic methods*.
91. April 1995: Symmetry and Mechanics, Univeristy of Arkansas, Fayetteville (Annual AMS – Univ. of Arkansas Conference): *Reduction by stages*.
92. May 1995: Séminaire des equations aux dériveées partielles, Univeristé de Paris–Sud, France: *La stabilité nonlineaire pour les equilibres relatifs*.
93. May 1995: US Science Days, Antwerpen, Belgium: *Lie theory for diffeomorphism groups*.
94. May 1995: Systèmes Dynamiques et Feuilletages, Séminaire Sud-Rhodanien, Montpellier, France: *Théorème de convexité pour les groupes de Poisson–Lie*.
95. June 1995: Colloquium, Centre de Physique Théorique Université de Provence, Luminy–Marseille, France: *Sur les invariants des algèbres de Kac–Moody*.
96. June 1995: Bifurkation und Symmetrie, Mathematisches Institut Oberwolfach, Germany: *Gradient systems and integrability*.

97. July 1995: Third International Congress for Industrial and Applied Mathematics, Hamburg, Germany. Minisymposium speaker: *On the geometry and applications of the double bracket equation.*
98. July 1995: Colloquium, Center for Nonlinear Studies, Department of Mathematics, University of Nice at Sophia–Antipolis, France: *La stabilité hamiltonienne avec des méthodes géométriques.*
99. October 1995: Plenary talk as invited AMS representative at the annual Mexican Mathematical Society Meeting, Colima, Mexico: *Poisson–Lie groups and convexity.*
100. November 1995: Colloquium, Université de Genève: *Systèmes intégrables, convexité et groupes de Poisson–Lie.*
101. November 1995: Stanford, UCB–UCD–UCSC–Stanford Symplectic geometry seminar: *The convexity theorem for the Poisson–Lie group actions.*
102. November 1995: Colloquium, UCSC: *The convexity theorem for the measure preserving diffeomorphisms of the annulus.*
103. December 1995: University of Groningen, Holland, 31-ste Nederlands Mathematisch Congres: *Convexity in infinite dimensions and in the Poisson category.*
104. March 1996: Universidad Nacional del Sur, Bahia Blanca, Argentina: *Sistemas con simetría*, curso posgrado de investigación (an intensive month long research course dealing with reduction theory).
105. May 1996: New Directions in Geophysical Fluid Dynamics and Turbulence, Arizona State University, Tempe: *On the time of existence of three dimensional homogeneous incompressible Euler flow in cylinders.*
106. June 1996: Deformation Theory, Symplectic Geometry, and Applications, Ascona, Switzerland: *Symplectic convexity theorems.*
107. July 1996: Géométrie Symplectique, Quantification, et multiplicités, CIRM, Luminy, France: *The convexity theorem for Poisson–Lie group actions.*
108. July 1996: Isaac Newton Institute for Mathematical Sciences, Program on Atmospheric and Ocean Dynamics: *Euler equations in thin domains.*
109. October 1996: University of Warwick, Department of Mathematics, Colloquium: *Relative equilibria as systemizers of dynamics.*
110. October 1996: Oxford University, Mathematical Physics Seminar: *Convexity in symplectic and Poisson geometry.*
111. October 1996: Oxford University, Geophysical and Nonlinear Fluid Dynamics Seminar: *Stability analysis and self organization via relative equilibria.*
112. October 1996: École Polytechnique Fédérale de Lausanne, Department de Mathématiques, Colloque: *Les équilibres relatifs comme les organisateurs de la dynamique: stabilité, instabilité et approximation.*
113. April 1997: Corvallis, Oregon, Special session speaker at the AMS meeting: *Reduction theory for subgroups.*
114. June 1997: Toronto, Canada, Fields Institute, Stability workshop: *Shadowing curves in two dimensional Navier–Stokes and Reduced MHD.*
115. June 1997: Toronto, Canada, Fields Institute, Conference in honor of V.I. Arnold’s 60-th birthday: *Reduction by stages.*
116. June 1997: Toronto, Canada, Fields Institute, Symplectic geometry conference: *The Euler–Poincaré equations.*

117. June 1997: Yokohama, Japan, Keio University: *On the geometry of the momentum map*, a series of eight 2 hour lectures.
118. June 1997: Kyoto, Japan, RIMS: *Lagrangian Reduction, infinite dimensional Lie theory, shadowing curves in Navier–Stokes equations* (three lectures).
119. July 1997: Clausthal–Zellerfeld, Germany, Arnold Sommerfeld Institute, Conference on Lie Theory and Physics: *Symplectic reduction and the Euler Poincaré equations*.
120. August 1997: Warsaw, Poland, Stefan Banach Center, Conference on Infinite dimensional Lie Theory: *Completion of the area preserving diffeomorphism group and the Schur–Horn–Kostant theorem*.
121. September 1997: Sibiu, Romania, First German–Romanian Differential Geometry Seminar: *An attempt at infinite dimensional Lie theory and convexity*.
122. December 1997: Séminaire Sud–Rhodanien, Luminy: *Réduction singulière et convexité de l’application moment*, minicourse (6 hours).
123. May 1998: Colloquium UC Santa Cruz. *Reduction theory in geometric mechanics*.
124. July 1998: Differential Geometry and Applications, Brno. *The averaged Euler equations*.
125. January 1999: Srni Winter School. *Singular reduction with a view towards bifurcation theory*, minicourse (3 hours).
126. February 1999: Institut Nonlinéaire de Nice. *The geometry of the α –Euler flow*.
127. February 1999: Los Alamos National Laboratory. *A synopsis of singular reduction with applications*.
128. February 1999: Western States Mathematical Physics Conference, Caltech *The averaged Euler model in fluid dynamics*.
129. March 1999: Groupe de Travail EDP, Jussieu: *Le modèle α –Euler*.
130. May 1999: University of Zürich, Analysis Seminar. *The averaged Euler flow*.
131. May 1999: Technische Universität Berlin, Mathematical Physics Seminar. *Geodesics on Lie groups and fluid dynamics*.
132. June 1999: Mathematical Institute of the Romanian Academy, *Semicentennial Conference: The geometry of the momentum map*.
133. June 1999: Université Libre de Bruxelles, séminaire de Géométrie ULB–Warwick. *Geodesic motion and averaging in hydrodynamics*
134. July 1999: *Geometry and quantization of symplectic manifolds and quantum integrable systems*, Ascona, Monte Verità: *Singular reduction and applications*.
135. July 1999: *Quantum theory and symmetries*, Arnold Sommerfeld Institute, Goslar: *Poisson singular reduction*.
136. July 1999: Oberwolfach: *Applications of singular reduction to stability of relative equilibria and relative periodic orbits*.
137. August 1999: Technische Universität München, Colloquium: *Routhian reduction*.
138. September 1999: *New Applications of Multisymplectic Geometry*, University of Salamanca: *The covariant Euler–Poincaré equations*.
139. October 1999: *Poisson Geometry and Integrable Systems*, Hangzhou, China: *Reduced variational principles*.

140. October 1999: Colloquium at the Hong Kong University of Science and Technology, Clear Water Bay, Kowloon: *The averaged Euler equations: analytic aspects.*
141. October 1999: Université Libre de Bruxelles, Journée de Géométrie: *Reduction of constrained variational principles.*
142. November 1999: *Prospects in Geometry*, Max-Planck Institut für Mathematik in den Naturwissenschaften, Leipzig: *Reduction on the tangent bundle.*
143. January 2000: Srni Winter School: *Topics in symplectic geometry and geometric mechanics*, mini-course (3 hours)
144. February 2000: CDS Seminar, Caltech: *Hamiltonian symmetric bifurcation theory.*
145. March 2000: University of Lisbon, Math, Dept. Colloquium: *Reduction in the tangent bundle*
146. May 2000: Université de Lille, two talks (a seminar and a colloquium): *Dynamics around critical elements in symmetric Hamiltonian systems* and *A review of the averaged Euler equations.*
147. June 2000: University of Warwick, MASIE workshop: *Averaged models in fluid dynamics.*
148. June 2000: Conference *Poisson 2000* at the Centre de Recherches Mathématiques, Luminy, France: *Symmetric Weinstein-Moser theorems.*
149. July 2000: Bialowieza International Conference on *Geometric Methods in Theoretical Physics*, two talks: *Symmetric Hamiltonian bifurcation theory* and a second talk for graduate students *Introduction to Hamiltonian systems with symmetry, momentum maps, and reduction theory.*
150. July 2000: Howard University conference on infinite dimensional Lie groups: *An new group of diffeomorphisms and fluid dynamics.*
151. September 2000: Peyresq MASSES Summer School: *Reduction theory*, 9 hours intensive graduate minicourse.
152. November 2000: Colloquium at the University of Twente, Enschede, Holland: *Stability of relative equilibria.*
153. January 2001: Seminar at the Theoretical Physics Institute of the University of Bialystok, Poland: *A review of Singular Reduction.*
154. March 2001: Keio University Workshop on Poisson Geometry: *Reduction of variational principles in nonholonomic mechanics.*
155. March 2001: Invited plenary speaker of the Geometry section of the Japanese Mathematical Society, Keio University: *Singular reduction and bifurcation from critical elements in symmetric Hamiltonian systems.*
156. May 2001: Conference Symmetry and Perturbation Theory in Hamiltonian Systems, Cala Ganone, Sardinia, Italy: *Lagrangian and Routhian reduction.*
157. June 2001: E. Schrödinger Institute Workshop on Poisson geometry: *The optimal momentum map.*
158. July 2001: *Congress Monteiro*, Universidad Nacional del Sur, Bahia Blanca, Argentina: *Reduction in Lagrangian formulation.*
159. July 2001: MASIE Annual Meeting, Instituto Superior Tecnico, Lisboa, Portugal: *Lagrangian reduction of nonholonomic systems.*
160. July 2001: AMS-SMF Joint Meeting, Ecole Normale Supérieure, Lyon, France: *Variational principles and geodesic flows in hydrodynamics.*

161. July 2001: *Second Symposium on Quantum Theory and Symmetries*, University of Cracow, Poland: *An extension of the momentum map and the associated reduction.*
162. September 2001: Peyresq MASSES Summer School: *Reduction by stages*, 5 hours intensive graduate minicourse.
163. September 2001: Plenary invited speaker at the joint meeting of the Österreichische Mathematische Gesellschaft and Deutsche Mathematikvereinigung, 15th Congress, Technische Universität Wien: *Singular reduction and hamiltonian dynamics.*
164. October 2001: Conference *Contemporary Problems in Mathematical Physics*, Cotonou, Benin: *Reduced variational principles in field theory.*
165. October 2001: Centre de Recherches Mathématiques, Université de Montréal: *A new diffeomorphism group and applications.*
166. February 2002: Caltech control seminar: *Controllability in reduced systems.*
167. April 2002: Academia Sinica Seminar, Beijing, China: *Hamiltonian versus Lagrangian reduction methods.*
168. April 2002: International Symposium on Structure Preserving Algorithms, Academia Sinica, Beijing: *Brockett's double bracket equation and its Lie algebraic interpretation and Reduction of variational principles and the symmetric double rigid body equations.*
169. April 2002: Wuhan Institute of Physics and Mathematics, The Chinese Academy of Sciences: *New variational principles that arise from reduction.*
170. May 2002: Conference *Symmetry and Perturbation Theory in Hamiltonian Systems*, Cala Gonone, Sardinia, Italy: *Reduction in infinite dimensional Lagrangian systems.*
171. June 2002: AMS-Italian Mathematical Union Joint Meeting in Pisa, Italy, Special session speaker in *Contact and symplectic geometry: Infinite dimensional Poisson geometry.*
172. June 2002: *Journées lyonnaises de géométrie et physique mathématique*, Université Claude Bernard, Lyon: *The symplectic slice theorem.*
173. July 2002: XXIst Workshop on Geometric Methods in Physics, *Recent Developments in Quantization*, Bialowieza, Poland: *Banach Lie-Poisson spaces.*
174. July 2002: *Poisson brackets for complex fluids*, Oberwolfach, Germany.
175. August 2002: IUTAM Symposium, Shanghai, *Second grade fluids with Navier boundary conditions*, Shanghai University.
176. August 2002: Optimal Control and Applications, *Control of reduced systems*, Tunxi, China.
177. September 2002: Poisson 2002, *Poisson geometry in infinite dimensions*. Instituto Superior Tecnico, Lisbon, Portugal.
178. September 2002: Schweizerische Mathematische Gesellschaft, *Geometric aspects of the momentum map*, Davos, Switzerland.
179. October 2002: Colloquium at the Theoretical Physics Institute, University of Bialystok, Poland: *What is geometric mechanics?.*
180. May 2003: *Geometry, Symmetry, and Mechanics III*, Institut d'Études Scientifiques de Cargèse, Cargèse, Corsica, France: *Geometric and analytic aspects of certain classes of second grade fluids.*
181. June 2003: *Poisson Geometry, Deformation Quantization, and Group Representations, PQR 2003*, Euroconference at the Université Libre de Bruxelles: *The optimal momentum map and reduction.*

182. June 2003: Hayashibara Forum, Oxford University and Warwick University: *Banach Lie-Poisson spaces and W^* -algebras.*
183. August 2003: *Symplectic Geometry*, E. Schrödinger Institute for Mathematical Physics, Vienna: *Classical and quantum reduction.*
184. November 2003: *Workshop on Dynamics*, Università di Torino: *Some remarks on second grade fluids.*
185. May 2004: *Hideki Omori's 65th Birthday Celebration Conference*, Tokyo University of Science and Technology: *A new diffeomorphism group and its relation to second grade fluids.*
186. May 2004: Seminar at Waseda University, Tokyo: *On some properties of second grade fluids.*
187. June 2004: Montpellier, *Reduction of Dirac manifolds.*
188. July 2004: *Poisson 2004*, University of Luxembourg: *Poisson geometry in infinite dimensions.*
189. July 2004: *Seminaire Sophus Lie*, University of Metz: *Coadjoint orbits in preduals of von Neumann algebras and certain operator ideals.*
190. July 2004: *Annual Conference of the Institute of Mathematics of the Romanian Academy*, Bucharest: *Reduction in finite and infinite dimensions.*
191. September 2004: *9th International Conference on Differential Geometry and its Applications*, Prague: *Momentum maps and reduction.*
192. September 2004: *XXIX Scuola Estiva di Fisica Matematica*, Ravello, Italy: *Reduction theory, an intensive six lectures summer course.*
193. November 2004: Seminar at the University Carlos Terceiro, Madrid: *Singular reduction.*
194. November 2004: *Towards the Spanish national center for mathematics*, Santiago de Compostela, Spain: *Presentation of the Bernoulli Center at the EPFL.*
195. January 2005: Colloquium, Technische Universität Darmstadt: *Symmetry and reduction in mechanics.*
196. March 2005: *Conference on Integrable Systems Theory and Its Applications* in Honor of Hermann Flaschka's 60th Birthday, Tucson, Arizona: *Infinite dimensional Poisson geometry and integrability.*
197. April 2005: *Geometric Methods in Mathematical Physics*, Florence, Italy: *Banach Lie-Poisson spaces and the integrability of the semi-infinite Toda lattice.*
198. May 2005: *Weizmann Institute PDE Seminar*, Rehovot, Israel: *Some properties of the second grade fluid equations.*
199. May 2005: *University of Haifa Geometry Seminar*, Haifa, Israel: *General reduction theory of symplectic manifolds.*
200. June 2005: *II Encuentro de Geometría Diferencial*, La Falda, Sierras de Córdoba: *General reduction theory for symplectic actions.*
201. June 2005: Colloquium at the Instituto Argentino de Matematica, Buenos Aires: *Poisson geometry in infinite dimensions.*
202. July 2005: Abdus Salam International Center for Theoretical Physics, Trieste: *Minicourse, 6 hours: Dirac Structures*
203. July 2005: *Conference on Poisson Geometry*, Abdus Salam International Center for Theoretical Physics, Trieste: *Reduction for general symplectic actions.*

204. August 2005: *Dynamical System Methods in Fluid Dynamics*, Oberwolfach: *Lie-Poisson structure for the α -Euler equations*
205. September 2005: *Quantification et analyse harmonique*, Ecole CIMPA-UNESCO, Monastir, Tunisia, minicourse, 9 hours: *Symmetry reduction*.
206. October 2005: Opening Colloquium of the Center for Mathematical Physics of the University of Hamburg: *Symmetry in infinite dimensional systems*.
207. December 2005: Institut de Mathématiques de Luminy, journée speciale du seminaire sur les groupes reductifs: *Infinite dimensional Hamiltonian systems with broken symmetry*.
208. January 2006: AMS Meeting, San Antonion, AMS-SIAM Special Session on Contemporary Dynamical Systems: *Symmetry breaking for toral actions in simple mechanical systems*.
209. February 2006: Control and Dynamical Systems Seminar, Caltech, Pasadena, USA: *Integrable flows on the symplectic group*.
210. March 2006: *Geometric Numerical Integration*, Oberwolfach, Germany: *Nonabelian semidirect products and their relation to integrability*.
211. June 2006: *Poisson 2006*, Tokyo, Japan: *Metric convexity in the symplectic category*.
212. September 2006: *XV International Workshop on Geometry and Physics*, Puerto de la Cruz, Tenerife, Canary Islands, Spain: *Semidirect product reduction via the stages program*.
213. November 2006: *Dynamical Integrability*, Centre International de Rencontres Mathematiques, Marseille-Luminy, France: *Integrable flows on the symplectic group*
214. November 2006: Geometry Seminar, Insituto Superior Técnico, Lisboa, Portugal: *Convexity for Symplectic Actions*.
215. December 2006: *Infinite Dimensional Lie Theory*, Oberwolfach, Germany: *Coadjoint orbits and the beginnings of a geometric representation theory*.
216. February 2007: *Northern California Symplectic Seminar*, UC Berkeley, California, USA: *A new integrable geodesic flow on the symplectic group*.
217. February 2007: Control and Dynamical Systems Seminar, Caltech, Pasadena, USA: *Reduction by stages with an application to fluid flow in a cylinder*.
218. April 2007: Hanoi University of Education, Hanoi, Vietnam: intensive doctoral minicourse *Geometric methods of integration*, six lectures.
219. April 2007: *Geometry of Integrable Systems*, Franco-Vietnamese Conference organized jointly by the French ANR project “Intégrabilité réelle et complexe et mécanique hamiltonienne” and Hanoi University of Education, Hanoi, Vietnam: *The role of convexity in Hamiltonian dynamics*.
220. May 2007: *Poisson Geometry and Applications*, Oberwolfach, Germany: *The Hamiltonian structure of the Euler-Yang-Mills equations*.
221. May 2007: GAP-2007 Conference *Geometry and Physics V: Interactions between symplectic geometry, Lie theory and Riemannian geometry*, Dakar, Senegal: minicourse *Symmetry and Hamiltonian Dynamics*, three hours.
222. May 2007: GAP-2007 Conference *Geometry and Physics V: Interactions between symplectic geometry, Lie theory and Riemannian geometry*, Dakar, Senegal: two hour lecture *A slice theorem in infinite dimensions and spatially homogeneous hydrodynamics*.
223. June 2007: *Mathematical Hydrodynamics: Euler Equations and Related Topics (EEC-300 Conference)*, Euler Institute, St. Petersburg, Russia: *Euler equations in fluid dynamics*.

224. June 2007: Seventh International Conference *Symmetry in Nonlinear Mathematical Physics*, Kiyv, Ukraine: *Euler-Yang-Mills equations and reduction*.
225. July 2007: *The 6th Congress of Romanian Mathematicians*, București, Romania: *Convexity in symplectic geometry*.
226. July 2007: *6th International Congress on Industrial and Applied Mathematics*, Zürich, Switzerland, Minisymposium *Geometry, Dynamics, and Control: Convexity, reduction, and dynamics*.
227. July 2007: *D²H-fest*, Bernoulli Center, Lausanne, Switzerland: *The Euler-Weil-Petersson equations and reduction*.
228. August 2007: *Tercer Encuentro de Geometría Diferencial, EGEO 2007*, La Falda, Argentina: *The universal Teichmüller space and the Euler-Weil-Petersson equations*.
229. August 2007: *Geometric Mechanics: Continuous and discrete, finite and infinite dimensional*, Banff International Research Station, Canada: *The Euler-Yang-Mills equations*.
230. October 2007: *Séminaire des équations aux dérivées partielles*, Université de Paris-Sud, Orsay, France: *Une approche géométrique à l'hydrodynamique*.
231. December 2007: *Séminaire: Dynamique globale des systèmes différentiels*, Laboratoire Jacques-Louis Lions, Université Pierre et Marie Curie (Paris VI), Paris, France: *Un nouveau système intégrable sur le groupe symplectique*.
232. January 2008: Control and Dynamical Systems Seminar, Caltech, Pasadena, USA: *Lagrangian and Hamiltonian structure of complex fluids*.
233. April 2008: Imperial College, London, UK: *Lagrangian and Hamiltonian structure of liquid crystals*.
234. June 2008: *Second International School on Geometry, Mechanics, and Control*, La Palma, Canary Islands, Spain: *Symmetry in geometric mechanics and dynamics*. Intensive 12 hours course for doctoral students and postdocs.
235. June 2008: *Conference on Moment Maps*, Centre de Recerca Matemàtica, Barcelona, Spain: *Reduction by stages*.
236. July 2008: *Applied Dynamics and Geometric Mechanics*, Mathematisches Forschungsinstitut Oberwolfach, Germany: *Lagrangian and Hamiltonian structure of complex fluids*.
237. August 2008: *Workshop on Moment Maps*, Bernoulli Center, Ecole Polytechnique Fédérale de Lausanne, Switzerland: *The geodesic equations on the universal Teichmüller space*.
238. November 2008: *Workshop on Infinite-Dimensional Lie Groups and Related Functional Analysis*, Universität Paderborn, Germany: *Diffeomorphism groups and complex fluids*.
239. January 2009: *Global Analysis and Quantisation Day: In honor of Yoshiaki Maeda*, Warwick Mathematical Institute, Warwick, UK: *The Euler-Weil-Petersson equation*.
240. January 2009: *Dynamics and Complexity. UK-Japan Winter School*, University of Bath, UK: *The geometric structure of the complex fluid equations*.
241. April 2009: Mathematical Physics Seminar, Universität Freiburg: *Applications of infinite dimensional Poisson geometry*.
242. June 2009: Colloquium in the Mechanical Engineering Department, Tsinghua University, Beijing, China: *Rigid body dynamics, variational principles and micropolar fluids*.
243. June 2009: *First World Congress on Global Optimization*, Changsha, Hunan, China: *Symmetric variational principles and optimal control*.

244. June 2009: *Fourth International Conference on Optimization and Control with Applications*, Harbin, Heilongjiang, China: *Reduced Variational Principles, Control, and Applications to Complex Fluids*.
245. June 2009: *Monodromy and Geometric Phases in Classical and Quantum Mechanics*, Lorentz Center, Leiden, Holland: *Routh reduction and geometric phases*.
246. June 2009: *60th Anniversary Conference of the Mathematics Institute "Simion Stoilow" of the Romanian Academy*, Bucharest, Romania: *Geometric methods in hydrodynamics and Teichmüller theory*.
247. August 2009: *Workshop on Conservative Dynamics and Symplectic Geometry*, Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil: *Integrable flows on the symplectic groups and optimal control*
248. August 2009: *Curso postgrado: Variedades de Dirac*, a 12 hours intensive course delivered in Spanish at the Universidad Nacional del Sur, Bahía Blanca, Argentina. It was attended by local graduate students as well as graduate students from the Centro Atómico and Instituto Balseiro in Bariloche and from the Universidad Nacional de la Plata. Bahía Blanca, Argentina.
249. September 2009: MSRI/Evans talk in the MSRI program *Symplectic geometry and topology*, Berkeley, California, USA: *Applications of symplectic geometry: rigid bodies, fluids, liquid crystals, KdV, Teichmüller geodesics*.
250. October 2009: Opening Workshop, *International Research Training Group 1529, Mathematical Fluid Dynamics*, Technische Universität Darmstadt, Germany: *Optimal control in geometric fluid dynamics*.
251. November 2009: Applied and Computational Mathematics Colloquium, Caltech, Pasadena, USA: *The geometric structure of conservative complex fluid equations*.
252. December 2009: Control and Dynamical Systems Seminar, Caltech Pasadena, USA: *Group actions and optimal control*.
253. December 2009: Colloquium, University of Paderborn, Germany: *Euler-Weil-Petersson geodesics on the universal Teichmüller space and applications*.
254. January 2010: PDE/Applied Mathematics Seminar, University of California, Davis, USA: *The universal Teichmüller space and its geodesics*.
255. January 2010: Mathematics Colloquium, University of California, Irvine, USA: *Geometry, fluids, control, optimization, and imaging*.
256. March 2010: *La reconquête de la dynamique par la géométrie après Lagrange*, IHES, Bures-sur-Yvette, France: *Reduction of variational principles and Euler-Lagrange equations*.
257. March 2010: *Symplectic and Poisson Geometry in interaction with Algebra, Analysis, and Topology*, MSRI, Berkeley, conference in honor of A. Weinstein's retirement, Berkeley, USA: *Poisson geometry in control, optimization, and imaging*.
258. May 2010: *8th AIMS Conference*, Dresden, Germany: *The variational structure of complex fluid equations*.
259. May 2010: *Bifurcation Theory, Integrable Systems, and the Bispectral Problem*, conference in honor of E. Horozov's 60th birthday, University of Sofia, Bulgaria: *Variational principles, liquid crystals, control, and imaging*.
260. June 2010: *Group Analysis of Differential Equations and Integrable Systems*, Protaras, Cyprus: *Variational principles in control and template matching*.
261. July 2010: *Poisson 2010*, Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil: *Poisson geometry of multibouquet dynamics*.

262. September 2010: *Geometry, Dynamics, Integrable Systems*, Beograd, Serbia: *Eringen's micropolar liquid crystal equations*.
263. September 2010: Colloquium, Université de Lille 1, Lille France, *Variational principles, reduction, and applications*.
264. September 2010: *Une journée en dimension infinie*, Université de Lille 1, Lille, France: *Control and optimization problems in infinite dimensions*.
265. September 2010: Centre de Physique Théorique, Université de Provence, Luminy, France: *Euler-Poincaré equations in control, optimization, and imaging*.
266. October 2010: Mathematics Colloquium, Washington University, Saint Louis, USA: *Geodesics of the Weil-Petersson metric on the universal Teichmüller space*.
267. October 2010: Mathematics Colloquium, Linköping University, Sweden: *The variational structure of conservative complex fluids*.
268. November 2010: Mathematics Colloquium, Universitatea București, Bucharest, Romania: *Lagrangian and Hamiltonian reduction with applications*.
269. November 2010: *A Geometry Workshop in Bucharest - VBLXV, in honour of Vasile Brînzănescu, on the occasion of his 65th anniversary*, IMAR, București, Romania: *Variational methods in control, optimization, and image registration*.
270. October 2010: Mathematics Colloquium, Universidad Complutense de Madrid, Spain: *Variational principles. Liquid crystals, control, and template matching*.
271. November 2010: Universidad de La Laguna, Tenerife, Spain: *Hamiltonian systems with symmetry, a six hours minicourse*.
272. November 2010: *VI International Symposium HAMSYS-2010 honoring E.A. Lacomba on his 65th anniversary*, Casa de la Primera Imprenta en América, Mexico City, Mexico: *The geometric theory of template matching and the motion of charged strands*.
273. December 2010: *Quantization of Singular Spaces*, Aarhus University, Aarhus, Denmark: *Singular reduction, quantum reduction, and coherent states quantization*.
274. March 2011: Control and Dynamical Systems Distinguished Lecture, Intelligent Servosystems Laboratory of the Institute for Systems Research, University of Maryland, College Park, Maryland, USA: *Higher order reduction with applications to imaging*.
275. May 2011: Seminar *Quant X*, Ecole Polytechnique, Paris, France: *The geometry of the equations of motion for free boundary fluids, elasticity, and liquid crystals*.
276. May 2011: Colloquium, Mathematics Department, Instituto Superior Técnico, Lisboa, Portugal: *The geometry of the equations of motion in continuum mechanics*.
277. May 2011: *University of Luxembourg Symplectic Geometry Conference*, Luxembourg: *Higher order mechanics and reduction*.
278. June 2011: *Hamiltonian Dynamics and Celestial Mechanics*, Castro Urdiales, Spain: *Reduction of Lagrangian systems*.
279. June 2011: *Poisson Geometry and Applications*, Figueira da Foz, Portugal: *Circle valued momentum maps and fixed points of symplectic actions*.
280. June 2011: *Nikolai Neumaier Memorial Conference*, Université de Haute Alsace, Mulhouse, France: *Standard and higher order Lagrangian reduction*.
281. June 2011: *Geometry and Perturbation Theory, SPT 2011*, Otranto, Italy: *Higher order Lagrange-Poincaré equations*.

282. July 2011: *Seventh Congress of Romanian Mathematicians, Braşov, Romania: Higher order mechanics with symmetry.*
283. July 2011: *ICIAM 2011, Vancouver, Canada: Variational formulation of the equations of motion in continuum mechanics.*
284. August 2011: *Workshop on Conservative Dynamics and Symplectic Geometry, IMPA, Rio de Janeiro, Brazil: Fixed points and circle valued momentum maps.*
285. September 2011: *4th International Conference on Geometry and Quantization, GEOQUANT School, Beijing, China: Reduction theory, a four hour mini course.*
286. September 2011: *4th International Conference on Geometry and Quantization, GEOQUANT, Tianjin, China: Weil-Petersson geodesics on the universal Teichmüller space.*
287. October 2011: *Bi-Hamiltonian Systems and All That, A Conference in Honor of Franco Magri's 65th Birthday, Milano Bicocca, Italy: The Bloch-Iserles system.*
288. January 2012: *Recent Trends in Dynamical Systems: An international Conference in Honor of Jürgen Scheurle, Carl Friedrich von Siemens Stiftung, München, Germany: Liquid crystal dynamics.*
289. February 2012: *Joint IAS-Princeton University Geometry Seminar, Princeton, USA: The geodesic spray of the Weil-Petersson metric on the universal Teichmüller space.*
290. March 2012: *Centenaire Henri Poincaré, Institut de Matematica al Academiei Române, Bucharest, Romania: Poincaré and variational principles.*
291. May-June 2012: *Dirac manifolds, a 16 hours intensive mini course, Lomonosov Moscow State University, Russia.*
292. May-June 2012: *Open problems in geometric mechanics, an 8 hours presentation of the problems in the Russian megagrant, Lomonosov Moscow State University, Russia.*
293. July 2012: *The legacy of Jerry Marsden. Fields Institute of Mathematical Sciences, Toronto, Canada: The link between the Ericksen-Leslie and Eringen models in liquid crystal theory.*
294. August 2012: *XXIX International Colloquium on Group Theoretical Methods in Physics, Chern Institute, Tianjin, China: Standard and higher order Lagrangian reduction.*
295. August 2012: *Geometry seminar, Hong Kong University, China: The geometry of Weil-Petersson geodesics.*
296. October 2012: *School on Quantum Geometry, Friedrich-August-Universität Erlangen-Nürnberg, Germany: Symmetric Infinite Dimensional Conservative Dynamics, intensive minicourse, 8 lecture hours.*
297. December 2012: *Seminar, Isaac Newton Institute, Cambridge, UK: The dynamics of conservative charged molecular strands.*
298. December 2012: *Colloquium, Glasgow University, UK: Applications of geometric mechanics: rigid bodies, fluids, liquid crystals, KdV, Teichmüller geodesics.*
299. December 2012: *Analysis and Singularities, dedicated to the 75th anniversary of Vladimir Igorevich Arnold, Steklov Mathematical Institute, Moscow, Russia: Singular reduction.*
300. December 2012: *Colloquium, Chebyshev Laboratory, St. Petersburg State University, Russia: The Weil-Petersson geodesics on the universal Teichmüller space.*
301. January 2013: *Minocourse, New Zealand annual Summer School, Ohope Beach, New Zealand: Reduction Theory.*

302. February 2013: Colloquium, Department of Mathematics, Linköping University, Sweden: *The universal Teichmüller space and the Weil-Petersson geodesics*.
303. March 2013: Daniel Bernoulli Laboratory, seminar, Moscow State University, Russia: *Weil-Petersson geodesics and applications*.
304. March 2013: Daniel Bernoulli Laboratory, seminar, Moscow State University, Russia: *An overview of singular reduction*.
305. April 2013: Moscow Mathematical Society, colloquium, Moscow State University, Russia: *Liquid crystal theories*.
306. May 2013: Seminar in the program “Mathematical Modelling and Analysis of Complex Fluids and Active Media in Evolving Domains”, Isaac Newton Institute, Cambridge, UK: *What does geometric mechanics have to say about the dynamics of complex fluids?*
307. July 2013: *Integrable Systems and Semiclassical Analysis*, Bernoulli Center, EPFL, Lausanne, Switzerland: *Integrable systems of Neumann type*.
308. July 2013: *Systèmes Intégrables de Dimension Finie*, Centre International de Rencontres Mathématiques, Luminy, France: *The momentum map nature of the Flaschka transformation*.
309. July 2013: *Trends in Geometry, Analysis, and Algebra. A conference in Honor of Alan Weinstein’s 70th Birthday*, Bernoulli Center, EPFL, Lausanne, Switzerland: *Reduction in complex fluids*.
310. July and August 2013: Summer school in the program “Mathematical Modelling and Analysis of Complex Fluids and Active Media in Evolving Domains”, Isaac Newton Institute, Cambridge, UK: *Geometric approach to the Hamiltonian and Lagrangian formulation of complex fluids*.
311. September 2013: *XXII International Fall Workshop on Geometry and Physics*, Evora, Portugal, September 2–5, 2013: *Infinite dimensional Poisson systems*.
312. December 2013: *deLéonfest*, ICMAT Madrid, Spain: *Nematodynamic models*.
313. January 2014: *Geometry of Mechanics and Control Theory*, National Mathematics Initiative, Department of Mathematics, Indian Institute of Science, Bangalore, India: *Pukanszky’s conditions and Flaschka transformations*.
314. March 2014: *Geometry and Lie Theory, March 5–8, 2014*, University of Hong Kong: *The geometric nature of the Flaschka transformation*.
315. March 2014: *Geometry and Physics XII, March 10–15, 2014*, Mathematics Institute, Sanya, Hainan, China: intensive graduate mini-course *Geometric methods in continuum mechanics*.
316. March 2014: *Perspectives in Dynamical Systems and Control, March 17–21, 2014*, Indian Institute of Technology, Mumbai, India: *Control in geometric mechanics*.
317. April 2014: *IV Iberoamerican Meeting on Geometry, Mechanics, and Control, April 7–11, 2014*, Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil: *Mechanics and control*.
318. April 2014: Seminar at the Skolkovo Institute of Science and Technology, April 21, Skolkovo, Moscow Region, Russia: *Pervasive indomitable symmetry: nature as a mathematician*.
319. April 2014: *Program in Applied Mathematics 35th Anniversary Meeting, April 25–28, 2014*, Department of Mathematics, University of Arizona, Tucson, USA: *The Flaschka transformation*.
320. May 2014: Seminar at the Abu Dhabi campus of New York University, Abu Dhabi, United Arab Emirates: *The geometric structure of liquid crystal equations*.
321. May 2014: *Lie Theory and Mathematical Physics, May 19–23, 2014*, Centre de Recherches Mathématiques, Montréal, Canada: *The Lie theoretical structure of liquid crystal dynamics*.

322. June 2014: *Group Analysis of Differential Equations and Integrable Systems, June 15–19, 2014, Larnaca, Cyprus: Integrable systems in condensed matter.*
323. July 2014: *Advances in Mathematical Fluid Mechanics, Stochastic and Deterministic Methods, June 30 – July 5, 2014*, University of Lisbon, Portugal: *Liquid crystal theories.*
324. July 2014: *10th AIMS Conference on Dynamical Systems, July 7–11, 2014*, Instituto de Ciencias Matemáticas, Madrid, Spain: *The Flaschka transformation.*
325. July 2014: *The 30th International Colloquium on Group Theoretical Methods in Physics (Group30), July 14–18, 2014*, Ghent University, Belgium: *Lagrangian reductions and integrable systems in condensed matter.*
326. November 2014: *International Conference on Mathematical Fluid Dynamics, Present and Future, The 8-th CREST-SBM International Conference*, Waseda University, Tokyo, Japan, November 11–14, 2014: *Geometric formulation of nematodynamics.*
327. November 2014: *Non-holonomic Mechanics and Geometric Optimal Control*, Institut Henri Poincaré, 25–28 November, 2014, Paris, France: *The geometry of nonholonomic diffusion.*
328. January 2015: *Infinite-Dimensional Riemannian Geometry with Applications to Image Matching and Shape Analysis*, Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria: *Continuum mechanics representations.*
329. June 2015: *Control of Nonlinear Physical Systems – Workshop at American Control Conference, June 30 2015*, Chicago, USA: *Clebsch optimal control.*
330. July 2015: *39th Congress of the American-Romanian Academy of Arts and Sciences*, Frascati, Italy, keynote speaker: *Geometric mechanics techniques in image registration.*
331. September 2015: *Symplectic Techniques in Topology and Dynamics 2015*, Köln, Germany: *The Flaschka transformation as a momentum map.*
332. September 2015: *Lie Groups: Representations and Geometry (49th Seminar Sophus Lie, September 22–25, 2015)*, Erlangen, Germany: *Canonical symplectic structure on coadjoint orbits of solvable Lie algebras.*
333. October 2015: *Discretization in Geometry and Dynamics, October 5-9, 2015*, Herrsching am Amnsee, Germany: *Multisymplectic variational integrators for nonsmooth Lagrangian continuum mechanics.*
334. October 2015: *Geometric Science of Information*, Ecole Polytechnique, Paris-Saclay, October 28-30, 2015: *Symmetry methods in geometric mechanics.*
335. November 2015: *Seminario de Física Matemática, Instituto Nacional de Matemática Pura e Aplicada*, Rio de Janeiro, Brazil, November 17, 2015: *Nematodynamics.*
336. December 2015: *Seminario Simplectico, Universidade Federal Fluminense*, Niterói, Brazil, December 1, 2015: *The $U(n)$ free rigid body: integrability and stability analysis of equilibria.*
337. December 2015: *The First Joint Meeting Brazil-Spain in Mathematics*, Fortaleza, Brazil, December 7-10, 2015: *Canonical symplectic structure on coadjoint orbits of solvable Lie algebras.*
338. January 2016: *UK-Japan Winter School*, Imperial College, London, UK, January 4-7, 2016: *Constrained stochastic variational principles for dissipative equations with advected quantities.*
339. May 2016: *Geometric Analysis in Control and Vision Theory*, Voss, Norway, May 8–14, 2016: *Reduction, control, optimization, and metamorphosis.*
340. June 2016: *Emerging Trends in Applied Mathematics and Mechanics*, Perpignan, France, May 30–June 3, 2016: *Nonsmooth multisymplectic variational integrators with application to beam impact.*

341. August 2016: *Sub-Riemannian Geometry and Celestial Mechanics, A Conference to Celebrate the 60th Birthday of Richard Montgomery*, August 3–5, 2016, Centro de Investigación en Matemáticas, Guanajuato, Mexico: *Constrained and Stochastic Variational Principles for Dissipative Equations*.
342. August 2016: Colloquium at the “*Simion Stoilow*” *Institute of Mathematics of the Romanian Academy, Bucharest, Romania*, August 10, 2016: *Nematodynamics of liquid crystals*.
343. September 2016: Intensive 10 hours course *Application Moment et Réduction en Mécanique*, held at *Méthodes Géométriques en Mécanique - 12-17 sept 2016 Quiberon - 5ème Ecole d’été de Mécanique Théorique*.