



## Mathematisches Forschungsinstitut Oberwolfach

### Scientific Programme 2012

Participants of the workshops at Oberwolfach are invited personally by the Director of the Institute. The participation is subject to such an invitation. Interested researchers, in particular young mathematicians, may contact the administration of the Institute ([admin@mfo.de](mailto:admin@mfo.de)). Since the number of participants is restricted, not all inquiries can be considered.

Information is also available on our website: <http://www.mfo.de> or <http://www.oberwolfach.org>

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| <b>01.01.-07.01.2012</b> <b>Mini-Workshops</b><br>(Deadline for Applications: 12.06.2011)<br>Organisers: N.N.  | <b>04.03.-10.03.2012</b> <b>Enveloping Algebras and Geometric Representation Theory</b><br>Organisers: Shrawan Kumar, Chapel Hill<br>Peter Littelmann, Köln<br>Wolfgang Soergel, Freiburg             |
| <b>08.01.-14.01.2012</b> <b>Explicit Versus Tacit Knowledge in Mathematics</b><br>Organisers: Tom Archibald, Burnaby<br>Jeanne Peiffer, Paris<br>Norbert Schappacher, Strasbourg   | <b>11.03.-17.03.2012</b> <b>Frontiers in Nonparametric Statistics</b><br>Organisers: Peter Bühlmann, Zürich<br>Tony Cai, Philadelphia<br>Axel Munk, Göttingen<br>Bin Yu, Berkeley                     |
| <b>15.01.-21.01.2012</b> <b>Recent Developments in the Numerics of Nonlinear Hyperbolic Conservation Laws and their Use in Science and Engineering</b><br>Organisers: Rainer Ansorge, Hamburg<br>Hester Bijl, Delft<br>Andreas Meister, Kassel<br>Thomas Sonar, Braunschweig | <b>18.03.-24.03.2012</b> <b>Mechanics of Materials</b><br>Organisers: Reinhold Kienzler, Bremen<br>David L. McDowell, Atlanta<br>Stefan Müller, Bonn<br>Ewald A. Werner, München                      |
| <b>22.01.-28.01.2012</b> <b>Interplay of Analysis and Probability in Physics</b><br>Organisers: Wolfgang König, Berlin<br>Peter Mörters, Bath<br>Mark Peletier, Eindhoven<br>Johannes Zimmer, Bath   | <b>25.03.-31.03.2012</b> <b>Representations of Finite Groups</b><br>Organisers: Joseph Chuang, London<br>Markus Linckelmann, Aberdeen<br>Gunter Malle, Kaiserslautern<br>Jeremy Rickard, Bristol      |
| <b>29.01.-04.02.2012</b> <b>The Mathematics and Statistics of Quantitative Risk Management</b><br>Organisers: Richard A. Davis, New York<br>Paul Embrechts, Zürich<br>Thomas Mikosch, Copenhagen   | <b>01.04.-07.04.2012</b> <b>Arbeitsgemeinschaft</b><br>(Subject will be announced in winter 2011)<br>Organisers: N.N.   |
| <b>05.02.-11.02.2012</b> <b>Computability Theory</b><br>Organisers: Klaus Ambos-Spies, Heidelberg<br>Rodney G. Downey, Wellington<br>Steffen Lempp, Madison<br>Wolfgang Merkle, Heidelberg   | <b>08.04.-14.04.2012</b> <b>Mini-Workshops</b><br>(Deadline for Applications: 18.09.2011)<br>Organisers: N.N.   |
| <b>12.02.-18.02.2012</b> <b>Advanced Computational Engineering</b><br>Organisers: Olivier Allix, Cachan<br>Carsten Carstensen, Berlin<br>Jörg Schröder, Essen<br>Peter Wriggers, Hannover  | <b>15.04.-21.04.2012</b> <b>Toric Geometry</b><br>Organisers: Klaus Altmann, Berlin<br>Victor Batyrev, Tübingen<br>Yael Karshon, Toronto  |
| <b>19.02.-25.02.2012</b> <b>Theory and Applications of Discontinuous Galerkin Methods</b><br>Organisers: Susanne C. Brenner, Baton Rouge<br>Ronald H.W. Hoppe, Augsburg<br>Beatrice Riviere, Houston   | <b>22.04.-28.04.2012</b> <b>Diophantische Approximationen</b><br>Organisers: Yann Bugeaud, Strasbourg<br>Yuri Nesterenko, Moscow  |
| <b>19.02.-25.02.2012</b> <b>Inverse Problems for Partial Differential Equations</b><br>Organisers: Martin Hanke-Bourgeois, Mainz<br>Andreas Kirsch, Karlsruhe<br>William Rundell, Austin<br>Matti Lassas, Helsinki   | <b>22.04.-28.04.2012</b> <b>Singularity Theory and Integrable Systems</b><br>Organisers: Boris Dubrovin, Trieste<br>Claus Hertling, Mannheim<br>Ian B. Strachan, Glasgow<br>Katrin Wendland, Augsburg |
| <b>26.02.-03.03.2012</b> <b>Control Theory: Mathematical Perspectives on Complex Networked Systems</b><br>Organisers: Frank Allgöwer, Stuttgart<br>Vincent Blondel, Louvain-la-Neuve<br>Uwe Helmke, Würzburg   | <b>29.04.-05.05.2012</b> <b>Triangulations</b><br>Organisers: William H. Jaco, Stillwater<br>Frank H. Lutz, Berlin<br>Francisco Santos, Santander<br>John M. Sullivan, Berlin                         |
|  | <b>06.05.-12.05.2012</b> <b>Analysis and Geometric Singularities</b><br>Organisers: Jochen Brüning, Berlin<br>Rafe Mazzeo, Stanford<br>Paolo Piazza, Roma   |
|  | <b>13.05.-19.05.2012</b> <b>Nonlinear Evolution Problems</b><br>Organisers: Klaus Ecker, Berlin<br>Jalal Shatah, New York<br>Gigliola Staffilani, Boston<br>Michael Struwe, Zürich                    |

- 20.05.-26.05.2012 Geometrie**  
Organisers: John Lott, Berkeley  
Iskander Taimanov, Novosibirsk  
Burkhard Wilking, Münster
- 27.05.-02.06.2012 Oberwolfach Seminars**  
(Subjects will be announced in winter 2011)  
Organisers: N.N.
- 03.06.-09.06.2012 Invariants in Low-Dimensional Topology and Knot Theory**  
Organisers: Selman Akbulut, East Lansing  
Stefan A. Bauer, Bielefeld  
Louis H. Kauffman, Chicago  
Vassily O. Manturov, Moscow
- 10.06.-16.06.2012 Applied Harmonic Analysis and Sparse Approximation**  
Organisers: Ingrid Daubechies, Durham NC  
Gitta Kutyniok, Osnabrück  
Holger Rauhut, Bonn  
Thomas Strohmer, Davis
- 17.06.-23.06.2012 Classical Algebraic Geometry**  
Organisers: Olivier Debarre, Strasbourg  
David Eisenbud, Berkeley  
Frank Schreyer, Saarbrücken  
Ravi Vakil, Stanford
- 24.06.-30.06.2012 Learning Theory and Approximation**  
Organisers: Kurt Jetter, Hohenheim  
Steve Smale, Hong Kong  
Ding-Xuan Zhou, Hong Kong
- 01.07.-07.07.2012 Reductions of Shimura Varieties**  
Organisers: Laurent Fargues, Orsay  
Ulrich Görtz, Essen  
Eva Viehmann, Bonn  
Torsten Wedhorn, Paderborn
- 01.07.-07.07.2012 Geometric Aspects of Spectral Theory**  
Organisers: Michiel van den Berg, Bristol  
Daniel Grieser, Oldenburg  
Thomas Hoffmann-Ostenhof, Vienna  
Iosif Polterovich, Montreal
- 08.07.-14.07.2012 Discrete Differential Geometry**  
Organisers: Alexander I. Bobenko, Berlin  
Richard Kenyon, Providence  
Peter Schröder, Pasadena  
Günter M. Ziegler, Berlin
- 15.07.-21.07.2012 Geometric Group Theory, Hyperbolic Dynamics and Symplectic Geometry**  
Organisers: Gerhard Knieper, Bochum  
Leonid Polterovich, Tel Aviv/Chicago  
Leonid Potyagailo, Villeneuve d Ascq
- 22.07.-28.07.2012 Calculus of Variations**  
Organisers: Camillo De Lellis, Zürich  
Gerhard Huisken, Golm  
Robert Jerrard, Toronto
- 29.07.-04.08.2012 Mathematical Aspects of General Relativity**  
Organisers: Mihalis Dafermos, Cambridge UK  
Jim Isenberg, Eugene  
Hans Ringström, Stockholm
- 05.08.-11.08.2012 Arithmetic Geometry**  
Organisers: Gerd Faltings, Bonn  
Johan de Jong, New York
- 12.08.-18.08.2012 Mathematical Aspects of Hydrodynamics**  
Organisers: Peter Constantin, Chicago  
Gregory Seregin, Oxford
- 19.08.-25.08.2012 Optimal and Near Optimal Configurations on Lattices and Manifolds**  
Organisers: Christine Bachoc, Bordeaux  
Peter Grabner, Graz  
Edward B. Saff, Nashville  
Achill Schürmann, Rostock
- 19.08.-25.08.2012 Rough Paths and PDEs**  
Organisers: Dan Crisan, London  
Peter Friz, Berlin  
Massimiliano Gubinelli, Paris
- 26.08.-01.09.2012 Low-Dimensional Topology and Number Theory**  
Organisers: Paul E. Gunnells, Amherst  
Walter Neumann, New York  
Adam S. Sikora, New York  
Don Zagier, Bonn
- 02.09.-08.09.2012 Komplexe Analysis**  
Organisers: Jean-Pierre Demailly, Grenoble  
Klaus Hulek, Hannover  
Thomas Peternell, Bayreuth
- 09.09.-15.09.2012 Scaling Limits in Models of Statistical Mechanics**  
Organisers: Kenneth Alexander, Los Angeles  
Marek Biskup, Los Angeles  
Remco van der Hofstad, Eindhoven  
Vladas Sidoravicius, Rio de Janeiro
- 16.09.-22.09.2012 Topologie**  
Organisers: Thomas Schick, Göttingen  
Peter Teichner, Berkeley/Bonn  
Nathalie Wahl, Copenhagen  
Michael Weiss, Aberdeen
- 23.09.-29.09.2012 Singularities**  
Organisers: Andras Nemethi, Budapest  
Duco van Straten, Mainz  
Victor Vassiliev, Moscow
- 30.09.-06.10.2012 Mini-Workshops**  
(Deadline for Applications: 18.03.2012)  
Organisers: N.N.
- 07.10.-13.10.2012 Arbeitsgemeinschaft**  
(Subject will be announced in summer 2012)  
Organisers: N.N.
- 14.10.-20.10.2012 Oberwolfach Seminars**  
(Subjects will be announced in winter 2011)  
Organisers: N.N.
- 21.10.-27.10.2012 Computational Inverse Problems**  
Organisers: Habib Ammari, Paris  
Liliana Borcea, Houston  
Thorsten Hohage, Göttingen  
Barbara Kaltenbacher, Graz
- 28.10.-03.11.2012 C\*-Algebras, Dynamics, and Classification**  
Organisers: Joachim Cuntz, Münster  
George A. Elliott, Toronto  
Andrew Toms, West Lafayette  
Wilhelm Winter, Nottingham
- 04.11.-10.11.2012 Non-Archimedean Analytic Geometry**  
Organisers: Vladimir Berkovich, Rehovot  
Walter Gubler, Tübingen  
Annette Werner, Frankfurt
- 11.11.-17.11.2012 Complexity Theory**  
Organisers: Peter Bürgisser, Paderborn  
Oded Goldreich, Rehovot  
Madhu Sudan, Cambridge MA  
Salil Vadhan, Cambridge MA
- 18.11.-24.11.2012 Oberwolfach Seminars**  
(Subjects will be announced in winter 2011)  
Organisers: N.N.
- 25.11.-01.12.2012 Mini-Workshops**  
(Deadline for Applications: 18.03.2012)  
Organisers: N.N.
- 02.12.-08.12.2012 Mathematical and Algorithmic Aspects of Atmosphere-Ocean Data Assimilation**  
Organisers: Andreas Griewank, Berlin  
Sebastian Reich, Potsdam  
Ian Roulstone, Surrey  
Andrew Stuart, Coventry
- 09.12.-15.12.2012 Convex Geometry and its Applications**  
Organisers: Keith M. Ball, London  
Martin Henk, Magdeburg  
Monika Ludwig, Wien
- 16.12.-22.12.2012 Dynamics of Patterns**  
Organisers: Wolf-Jürgen Beyn, Bielefeld  
Bernold Fiedler, Berlin  
Björn Sandstede, Providence