

# Scientific Program 2017

Participants of the Workshops at Oberwolfach are invited personally by the Director of the Institute. Participation is subject to such an invitation. Interested researchers, in particular junior scientists, can contact the administration of the Institute. Since the number of participants is restricted, not all inquiries can be considered.

**01.01.2017 – 07.01.2017 (1701)**

**Combinatorics**

Jeff Kahn, Piscataway  
Angelika Steger, Zürich  
Benny Sudakov, Zürich

**08.01.2017 – 14.01.2017 (1702)**

**Mini-Workshops (Deadline for Applications: 01.05.2016)**

N.N.

**15.01.2017 – 21.01.2017 (1703)**

**Cryptography**

Johannes Buchmann, Darmstadt  
Shafi Goldwasser, Cambridge MA

**22.01.2017 – 28.01.2017 (1704)**

**Emerging Developments in Interfaces and Free Boundaries**

Charles M. Elliott, Warwick  
Yoshikazu Giga, Tokyo  
Michael Hinze, Hamburg  
Vanessa Styles, Brighton

**29.01.2017 – 04.02.2017 (1705)**

**Applications of Optimal Transportation in the Natural Sciences**

Jean-David Benamou, Le Chesnay  
Virginie Ehrlacher, Marne-la-Vallée  
Daniel Matthes, Garching

**05.02.2017 – 11.02.2017 (1706)**

**Mini-Workshops (Deadline for application: 01.05.2016)**

N.N.

**12.02.2017 – 18.02.2017 (1707)**

**Set Theory**

Ilijas Farah, Toronto  
Sy-David Friedman, Wien  
Ralf Schindler, Münster  
Hugh Woodin, Cambridge MA

**19.02.2017 – 25.02.2017 (1708)**

**Representation Theory of Quivers and Finite Dimensional Algebras**

William Crawley-Boevey, Leeds  
Osamu Iyama, Nagoya  
Henning Krause, Bielefeld

**26.02.2017 – 04.03.2017 (1709)**

**Mathematics of Quantitative Finance**

Peter Friz, Berlin  
Antoine Jacquier, London  
Josef Teichmann, Zürich

**05.03.2017 – 11.03.2017 (1710)**

**Real Algebraic Geometry With a View Toward Moment Problems and Optimization**

Didier Henrion, Toulouse  
Maria Infusino, Konstanz  
Salma Kuhlmann, Konstanz  
Victor Vinnikov, Beer-Sheva

**12.03.2017 – 18.03.2017 (1711)**

**Space-time Methods for Time-dependent Partial Differential Equations**

Ricardo Nochetto, College Park  
Stefan Sauter, Zürich  
Christian Wieners, Karlsruhe

**19.03.2017 – 25.03.2017 (1712)**

**Statistical Recovery of Discrete, Geometric and Invariant Structures**

Peter Bühlmann, Zürich  
Axel Munk, Göttingen  
Martin Wainwright, Berkeley  
Bin Yu, Berkeley

**26.03.2017 – 01.04.2017 (1713)**

**Multiscale and High-Dimensional Problems**

Albert Cohen, Paris  
Wolfgang Dahmen, Aachen  
Ronald A. DeVore, College Station  
Angela Kunoth, Köln

**02.04.2017 – 08.04.2017 (1714)**

**Arbeitsgemeinschaft (Topic tba in summer 2016)**

N.N.

**09.04.2017 – 15.04.2017 (1715)**

**Discrete Geometry**

Imre Barany, London  
Xavier Goaoc, Marne-la-Vallée  
Günter Rote, Berlin

**16.04.2017 – 22.04.2017 (1716)**

**Algebraic Statistics**

Mathias Drton, Seattle  
Thomas Kahle, Magdeburg  
Bernd Sturmfels, Berkeley  
Caroline Uhler, Klosterneuburg

**23.04.2017 – 29.04.2017 (1717)**

**Algebraic Groups**

Corrado De Concini, Roma  
Peter Littelmann, Köln  
Zinovy Reichstein, Vancouver

**30.04.2017 – 06.05.2017 (1718)**

**O-Minimality and its Applications to Number Theory and Analysis**

Tobias Kaiser, Passau  
Jonathan Pila, Oxford  
Patrick Speissegger, Hamilton  
Alex Wilkie, Manchester

**07.05.2017 – 13.05.2017 (1719)**

**Geophysical Fluid Dynamics**

Yoshikazu Giga, Tokyo  
Matthias Hieber, Darmstadt  
Edriss S. Titi, College Station/Rehovot

**14.05.2017 – 20.05.2017 (1720)**

**Computational Inverse Problems for Partial Differential Equations**

Liliana Borcea, Ann Arbor  
Thorsten Hohage, Göttingen  
Barbara Kaltenbacher, Klagenfurt

**21.05.2017 – 27.05.2017 (1721)**

**Harmonic Analysis and the Trace Formula**

Werner Müller, Bonn  
Sug Woo Shin, Berkeley  
Birgit Speh, Ithaca  
Nicolas Templier, Ithaca

**28.05.2017 – 03.06.2017 (1722)**

**Stochastic Analysis: Geometry of Random Processes**

Alice Guionnet, Lyon  
Martin Hairer, Warwick  
Grégory Miermont, Lyon

**04.06.2017 – 10.06.2017 (1723)**

**Oberwolfach Seminars (Topics tba in winter 2016)**

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**11.06.2017 – 17.06.2017 (1724)**

**Nonlinear Waves and Dispersive Equations**

Herbert Koch, Bonn  
Pierre Raphael, Nice  
Daniel Tataru, Berkeley  
Monica Visan, Los Angeles

- 18.06.2017 – 24.06.2017 (1725a)**  
**Reaction Networks and Population Dynamics**  
Ellen Baake, Bielefeld  
Tom Kurtz, Madison  
Carsten Wiuf, Copenhagen
- 18.06.2017 – 24.06.2017 (1725b)**  
**Nonlinear Partial Differential Equations on Graphs**  
Reika Fukuizumi, Sendai  
Jeremy Marzuola, Chapel Hill  
Dmitry Pelinovsky, Hamilton  
Guido Schneider, Stuttgart
- 25.06.2017 – 01.07.2017 (1726)**  
**Geometric Structures in Group Theory**  
Martin Bridson, Oxford  
Linus Kramer, Münster  
Bertrand Rémy, Palaiseau  
Karen Vogtmann, Warwick
- 02.07.2017 – 08.07.2017 (1727)**  
**Differentialgeometrie im Großen**  
Gerard Besson, Saint Martin d'Hères  
Ursula Hamenstädt, Bonn  
Michael Kapovich, Davis  
Ben Weinkove, Evanston
- 09.07.2017 – 15.07.2017 (1728)**  
**Dynamische Systeme**  
Hakan Eliasson, Paris  
Helmut Hofer, Princeton  
Jean-Christophe Yoccoz, Paris
- 16.07.2017 – 22.07.2017 (1729)**  
**Material Theories**  
Sergio Conti, Bonn  
Antonio DeSimone, Trieste  
Stephan Luckhaus, Leipzig  
Lev Truskinovsky, Palaiseau
- 23.07.2017 – 29.07.2017 (1730)**  
**Real Analysis, Harmonic Analysis, and Applications**  
Michael Christ, Berkeley  
Detlef Müller, Kiel  
Christoph Thiele, Bonn
- 30.07.2017 – 05.08.2017 (1731)**  
**Partial Differential Equations**  
Camillo De Lellis, Zürich  
Richard M. Schoen, Stanford/Irvine  
Peter M. Topping, Warwick
- 06.08.2017 – 12.08.2017 (1732)**  
**Analysis, Geometry and Topology of Positive Scalar Curvature Metrics**  
Bernd Ammann, Regensburg  
Bernhard Hanke, Augsburg  
André Neves, London
- 13.08.2017 – 19.08.2017 (1733)**  
**Proof Complexity and Beyond**  
Albert Atserias, Barcelona  
Jakob Nordström, Stockholm  
Toniann Pitassi, Toronto  
Alexander Razborov, Chicago/Moscow
- 20.08.2017 – 26.08.2017 (1734)**  
**Low-dimensional Topology and Number Theory**  
Paul E. Gunnells, Amherst  
Walter D. Neumann, New York  
Adam S. Sikora, New York  
Don B. Zagier, Bonn
- 27.08.2017 – 02.09.2017 (1735)**  
**Komplexe Analysis**  
Philippe Eyssidieux, Saint Martin d'Hères  
Jun-Muk Hwang, Seoul  
Stefan Kebekus, Freiburg  
Mihai Paun, Seoul
- 03.09.2017 – 09.09.2017 (1736)**  
**Automorphic Forms and Arithmetic**  
Valentin Blomer, Göttingen  
Emmanuel Kowalski, Zürich  
Philippe Michel, Lausanne
- 10.09.2017 – 16.09.2017 (1737)**  
**Mathematical Questions and Challenges in Quantum Electrodynamics and its Applications**  
Volker Bach, Braunschweig  
Miguel Ballesteros, Mexico  
Dirk-André Deckert, München  
Israel Michael Sigal, Toronto
- 17.09.2017 – 23.09.2017 (1738)**  
**Mini-Workshops (Deadline for applications: 01.03.2017)**  
N.N.
- 24.09.2017 – 30.09.2017 (1739)**  
**Algebraic Geometry: Birational Classification, Derived Categories, and Moduli Spaces**  
Christopher Hacon, Salt Lake City  
Daniel Huybrechts, Bonn  
Bernd Siebert, Hamburg  
Chenyang Xu, Beijing
- 01.10.2017 – 07.10.2017 (1740)**  
**Spectral Structures and Topological Methods in Mathematical Quasicrystals**  
Michael Baake, Bielefeld  
David Damanik, Houston  
Johannes Kellendonk, Villeurbanne  
Daniel Lenz, Jena
- 08.10.2017 – 13.10.2017 (1741)**  
**Arbeitsgemeinschaft (Topic tba in winter 2016)**  
N.N.
- 15.10.2017 – 21.10.2017 (1742)**  
**Oberwolfach Seminars (Topics tba in winter 2016)**  
N.N.
- 22.10.2017 – 28.10.2017 (1743)**  
**Mini-Workshops (Deadline for applications: 01.03.2017)**  
N.N.
- 29.10.2017 – 04.11.2017 (1744a)**  
**Interplay between Number Theory and Analysis for Dirichlet Series**  
Frédéric Bayart, Aubière  
Kaisa Matomäki, Turku  
Eero Saksman, Helsinki  
Kristian Seip, Trondheim
- 29.10.2017 – 04.11.2017 (1744b)**  
**Copositivity and Complete Positivity**  
Abraham Berman, Haifa  
Immanuel M. Bomze, Vienna  
Mirjam Dür, Trier  
Naomi Shaked-Monderer, Yezreel Valley
- 05.11.2017 – 11.11.2017 (1745)**  
**Mathematical Logic: Proof Theory, Constructive Mathematics**  
Samuel R. Buss, La Jolla  
Rosalie Iemhoff, Utrecht  
Ulrich Kohlenbach, Darmstadt  
Michael Rathjen, Leeds
- 12.11.2017 – 18.11.2017 (1746)**  
**Variational Methods for Evolution**  
Alexander Mielke, Berlin  
Mark Peletier, Eindhoven  
Dejan Slepcev, Pittsburgh
- 19.11.2017 – 25.11.2017 (1747)**  
**Oberwolfach Seminars (Topics tba in winter 2016)**  
N.N.
- 26.11.2017 – 02.12.2017 (1748)**  
**Reflection Positivity**  
Arthur Jaffe, Harvard  
Karl-Hermann Neeb, Erlangen  
Gestur Ólafsson, Baton Rouge  
Benjamin Schlein, Zürich
- 03.12.2017 – 09.12.2017 (1749)**  
**Classical and Quantum Mechanical Models of Many-Particle Systems**  
Anton Arnold, Wien  
Eric Carlen, Piscataway  
Laurent Desvillettes, Cachan
- 10.12.2017 – 16.12.2017 (1750)**  
**Network Models: Structure and Function**  
Louigi Addario-Berry, Montreal  
Shankar Bhamidi, Chapel Hill  
Remco van der Hofstad, Eindhoven  
Frank den Hollander, Leiden
- 17.12.2017 – 23.12.2017 (1751)**  
**Mathematical Instruments between Material Artifacts and Ideal Machines: Their Scientific and Social Role before 1950**  
Samuel Gessner, Lisboa  
Ulf Hashagen, München  
Jeanne Peiffer, Paris  
Dominique Tournès, Sainte-Clotilde