



## Fakultät für Mathematik

### Vorträge

Mittwoch, 26. Juni 2013, ab 16:15 Uhr, Olga Taussky-Todd Raum (C 209), UZA 4

#### Mathematisches Kolloquium

Prof. Dr . Bernd Sturmfels (Univ. of California Berkeley): „Non-negative Polynomials versus Sums of squares“

##### Abstract:

We discuss the geometry underlying the difference between non-negative polynomials and sums of squares. The hypersurfaces that discriminate these two cones for ternary sextics and quaternary quartics are shown to be Noether-Lefschetz loci of K3 surfaces. The projective duals of these hypersurfaces are defined by rank constraints on Hankel matrices. We compute their degrees using numerical algebraic geometry, thereby verifying results due to Maulik and Pandharipande. The non-SOS extreme rays of the two cones of non-negative forms are parametrized respectively by the Severi variety of plane rational sextics and by quartic symmetroids. This lecture is based on work of Greg Blekherman, and a joint paper with Jonathan Hauenstein, John Christian Ottem and Kristian Ranestad.

**15:45 Uhr – 16:15 Uhr K & K (Common Room)**

V.-Prof. Mag. Dr. Herwig Hauser, Dekan Univ.-Prof. Dr. Harald Rindler

Montag, 24. Juni 2013, von 15:15 Uhr bis 17:00 Uhr, Seminarraum D 107, UZA 4

#### Arbeitsgemeinschaft Ergodentheorie

Roland Zweimüller: The general asymptotic return-time process”

[http://mat.univie.ac.at/~zweimueller/AG\\_ETHY.html](http://mat.univie.ac.at/~zweimueller/AG_ETHY.html)

Montag, 24. Juni 2013, ab 9:30 Uhr bis Freitag, 28. Juni 2013, ab 10:00 Uhr, Erwin Schrödinger Lecture Hall, Boltzmanng. 9, 1090 Wien

The Geometry of Topological D-branes, Categories and Applications:  
Workshop on ‘Higher Categories and Topological Quantum Field Theories’

Organized by: S. Gukov, A. Kapustin, L. Katzarkov and Y. Soibelman

Dienstag, 25. Juni 2013, von 11:15 Uhr bis 12:45 Uhr, Seminarraum S1, Althanstraße 12, 1090 Wien

#### Complex Analysis Seminar

Tobias Preinerstorfer: “A sufficient condition for  $A^2(C, \Psi)$  infinite dimension”

organized by: A.K. Herbig

<http://www.univie.ac.at/complexanalysis/Activities/Seminar2013.html>

Dienstag, 25. Juni 2013, von 17:00 Uhr bis 18:30 Uhr, Seminarraum C 209, UZA 4

#### Vortrag im Rahmen des Seminars Wahrscheinlichkeitstheorie

Andrej Depperschmidt (Freiburg,): “Tree-valued Fleming-Viot processes with mutation and selection”

Link: [http://www.mat.univie.ac.at/~finance\\_hp/seminarSS13.html](http://www.mat.univie.ac.at/~finance_hp/seminarSS13.html)



## Fakultät für Mathematik

Dienstag, 25. Juni 2013, ab 14:00 Uhr, TU Institut für Diskrete Mathematik und Geometrie, Freihaus, grüner Turm (A), 5. Stock, kleiner Seminarraum (DA 05 C22), Wiedner Hauptstraße 8-10, 1040 Wien

### **Algebra Seminar**

Karl Lorenzen (Penn State Altoona): „Near supplements and complements in solvable minimax groups“

Link: <http://www.dmg.tuwien.ac.at/fg1/seminar.html>

Dienstag, 25. Juni 2013, ab 15:00 Uhr, Seminarraum D 103, UZA 4

### **Arbeitsgemeinschaft Biomathematik**

Andrej Depperschmidt (Freiburg, DE.): „Tree-valued Fleming-Viot processes with mutation and selection“

Mittwoch, 26. Juni 2013, ab 17:30 Uhr, Seminarraum C 209, UZA 4

### **Öffentliche Defensio**

Mag. Tanveer Iqbal:” Worst case error bounds for the solution of uncertain partial differential equations“

Donnerstag, 27. Juni 2013, von 16:00 Uhr bis 18:00 Uhr, Josephinum, SR (Zi. O2.101), Währingerstr. 25, 1090 Wien

### **KGRC Research Seminar**

Thomas Johnstone: “Indestructibility Results for Ramsey Cardinals”

[http://www.logic.univie.ac.at/Current\\_talk.html](http://www.logic.univie.ac.at/Current_talk.html)

Donnerstag, 27. Juni 2013, von 17:00 Uhr bis 18:30 Uhr, Seminarraum C 209, UZA 4

### **Vortrag im Rahmen des Seminars Finanzmathematik**

Eberhard Mayerhofer: tba

Link: [http://www.mat.univie.ac.at/~finance\\_hp/seminarSS13.html](http://www.mat.univie.ac.at/~finance_hp/seminarSS13.html)

Freitag, 28. Juni, von 11:15 Uhr bis 12:00 Uhr, Seminarraum D 101, UZA 4

### **Vortrag**

Philipp Harms: „Two-Armed Restless Bandits with Imperfect Information: Stochastic Control and Indexability“

Freitag, 28. Juni 2013, ab 12:30 Uhr, WPI Seminarraum C 714, UZA 4

### **WPI Vortrag**

Prof. Sivaguru Sritharan (Director of DRCSI): “An Invitation to the Millennium Prize Problem for the Navier-Stokes Equation and its Probabilistic Counter Part”

Organized by: WPI

Freitag, 28. Juni 2013, von 14:00 Uhr bis 15:30 Uhr, Josephinum, SR (Zi. O2.101), Währingerstr. 25, 1090 Wien

### **KGRC Research Seminar**

Santi Spadaro (Silesian, Univ. of Opava): “Chain conditions for topological bases”

[http://www.logic.univie.ac.at/Current\\_talk.html](http://www.logic.univie.ac.at/Current_talk.html)