



Vorträge

**Mittwoch, 2. Dez. 2015, von 15:00 Uhr – 15:45 Uhr, Sky-Lounge (12 OG), Oskar-Morgenstern-Platz 1, 1090 Wien**

**Junior Kolloquium**

**Jan Maas (IST Austria): „Optimal transport and the isoperimetric inequality”**

**Abstract:**

Suppose that you are given an amount of mass, located at different spatial locations ("factories"), which needs to be transported to prescribed final destinations ("consumers"). How much mass should be transported from each factory to each consumer, in order to minimise the total transport costs? In recent years, this innocent looking optimisation problem has found many applications in analysis, geometry and probability. I will give a brief introduction to the topic, and show how one can use optimal transport to give an elegant proof of the isoperimetric inequality, which goes back to Gromov.

**15:45 Uhr – 16:15 Uhr K & K (Sky Lounge)**

**Mittwoch, 2. Dez. 2015, ab 16:15 Uhr, Sky-Lounge (12 OG), Oskar-Morgenstern-Platz 1, 1090 Wien**

**Mathematisches Kolloquium**

**Jan Maas (IST Austria): „Optimal transport in discrete probability“**

**Abstract:**

Optimal transport has become a flourishing mathematical field, yielding new connections between analysis, probability and geometry. Among the highlights are new interpretations of heat flow and Ricci curvature in terms of a geometric structure on the space of probability measures induced by the Wasserstein metric of optimal transport. In discrete settings this structure degenerates, and the theory appears to break down. We present a new class of transportation metrics, which allow us to apply ideas from optimal transport to problems in discrete probability. In particular, we obtain a notion of discrete Ricci curvature, with interesting geometric and probabilistic consequences. We will also show examples of graphs and interacting particle systems for which explicit curvature bounds can be obtained

**Jiri Cerny, Harald Rindler**

**17:15 Uhr Vinum cum pane**

**Montag, 30. Nov. 2015, ab 9.30 Uhr – Freitag, 4. Dez. 2015, ab 10 Uhr, ESI, Boltzman Lecture Hall, Boltzmanngasse 9/2, 1090 Wien, Programme on „Higher Structures in String Theory and Quantum Field Theory”**

**Workshop I**

**“Instructional workshop for students and junior researchers” Week 2**

**org. by H. Grosse (U Vienna), D. Stevenson (U Glasgow), R. J. Szabo (Heriot-Watt U) (Details siehe Attachment)**

**Dienstag, 1. Dez. 2015, von 14:15 bis 15:00 Uhr, SR 12, 2. OG., Oskar-Morgenstern-Platz 1, 1090 Wien**

**Mathematical Physics Seminar**

**Aleksey Kostenko (Univ. Wien): „Dispersion estimates for the discrete Laguerre operator ”**

**organized by G. Teschl, A. Kostenko**

**<http://www.mat.univie.ac.at/~gerald/mp-sem/kostenko15a.pdf>**



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## Fakultät für Mathematik

Dienstag, 1. Dez. 2015, von 15:00 Uhr bis 17:00 Uhr, SR 8, 2. OG., Oskar-Morgenstern-Platz 1, 1090 Wien,

### Geometry and Analysis on Groups

Thibault Pillon (Univ. de Geneve): "Fibred property A."

organized by G. Arzhantseva, Ch. Cashen

<http://www.mat.univie.ac.at/~gagt/abstracts/151201.html>

Mittwoch, 2. Dez. 2015, ab 11:30 Uhr, SR 7, 2. OG., Oskar-Morgenstern-Platz 1, 1090

### NuHAG Seminar

Markus Sobotnik: "The spectrum of the Gabor frame operator: part I, continuity on the lattice"

org. by M. Ehler, KH. Gröchenig, J. L. Romero

[http://www.univie.ac.at/nuhag-php/program/talks\\_details.php?id=3041](http://www.univie.ac.at/nuhag-php/program/talks_details.php?id=3041)

Donnerstag, 3. Dez. 2015, von 16:00 Uhr bis 18:00 Uhr, Josephinum, SR 8 (Zi. 02.101), Währinger Str. 25, 1090 Wien,

### KGRC Research Seminar

Daniel Soukup (Hungarian Acad. of Science): "Uniformization properties in connection to graph colourings"

organized by Kurt Gödel Research Center

[http://www.logic.univie.ac.at/2015/Talk\\_12-03\\_a.html](http://www.logic.univie.ac.at/2015/Talk_12-03_a.html)

Donnerstag, 3. Dez. 2015, von 16:30 Uhr bis 18:00 Uhr, SR 9, 2. OG., Oskar-Morgenstern-Platz 1, 1090 Wien

### Vienna Seminar in Mathematical Finance and Probability

Kim Weston (Carnegie Mellon Univ., Pittsburgh): "When is the dual optimizer a martingale?"

<http://www.fam.tuwien.ac.at/events/vs-mfp/>

Freitag, 4. Dez. 2015, von 13:00 Uhr bis 14:30 Uhr, Josephinum, SR 8 (Zi. 02.101), Währinger Str. 25, 1090 Wien,

### KGRC Research Seminar

Sheila Miller (New York City College of Technology): "The nature of measurement in set theory"

organized by Kurt Gödel Research Center

[http://www.logic.univie.ac.at/2015/Talk\\_12-04\\_a.html](http://www.logic.univie.ac.at/2015/Talk_12-04_a.html)