



Vorträge

Mittwoch, 21. Jänner 2015, ab 16:15 Uhr, Sky-Lounge (12 OG),
Oskar-Morgenstern-Platz 1, 1090 Wien

Mathematisches Kolloquium

Prof. Dr. David G. Ebin, (Stony Brook University)
“Constraining forces and a problem in fluid motion”

Abstract: Several problems in mechanics can be understood as motion near a submanifold of a configuration space. In such cases one might be given a manifold with a Riemannian metric, a submanifold and a function whose minimum is the submanifold. One then considers possible motions whose kinetic energy is given by the metric and whose potential energy is given by the function. Such motions will oscillate about the submanifold. We shall begin by analyzing a simple motion in \mathbb{R}^2 whose submanifold is the circle and whose potential energy is k times the square of the distance to the circle, where k is a large positive constant. We will see that the motion oscillates about the circle with a frequency \sqrt{k} and amplitude $1/k$ so as k goes to infinity, the motion is constrained to the circle. Then we shall look at incompressible inviscid fluid motion with free boundary in a domain Ω included in \mathbb{R}^3 . Here the configuration space will be all volume preserving maps of Ω into \mathbb{R}^3 and the submanifold D will be volume preserving diffeomorphisms of Ω . The potential energy function $V(\eta)$ will be k times the area of the boundary of $\eta(\Omega)$ where k again is a large positive constant. The motion determined by this is incompressible fluid motion with surface tension proportional to k . We shall derive the equations of the motion and show that if the the boundary of Ω has constant mean curvature (and is therefore a sphere), then as k gets large the motion converges to a curve in D ; that is, as k goes to infinity the motion converges to a motion with fixed boundary.

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

Dr. DI Martin Bauer
Dekan Univ.-Prof. Dr. Harald Rindler

Montag, 19. Jänner 2015 ab 10:00 Uhr bis Freitag, 16. Jänner 2015, ab 10:00 Uhr,
Erwin Schrödinger Lecture Hall, Boltzmannngasse 9, 1090 Wien

Programme on “Infinite-dimensional Riemannian geometry with applications to image matching and shape analysis“
(7. Jänner – 27. Februar 2015)

ESI Workshop on “Infinite-dimensional Riemannian geometry”

organized by
M. Bauer (Univ. Wien), M. Bruveris (Brunel), P. W. Michor (Univ. Wien)
(siehe Attachment)

Dienstag, 20. Jänner 2015 bis Dienstag 27. Jänner 2015 ab 14:15, Erwin Schrödinger
Lecture Hall, Boltzmannngasse 9, 1090 Wien

Advanced Graduate Lecture Course „Cluster algebras and discrete integrable systems“
organized by A. Hone (U. Kent)
(siehe Attachment)



Dienstag, 20. Jänner 2015, von 10:15 Uhr bis 11:45 Uhr, Seminarraum 12, 2. Stock
Oskar-Morgenstern-Platz 1, 1090 Wien

Complex Analysis Seminar

Sebastian Woblistin: “The geometry of the set of implicit solutions of a power series equation”

Dienstag, 20. Jänner 2015, von 15:00 Uhr bis 17:00 Uhr, Seminarraum 8, 2. Stock
Oskar-Morgenstern-Platz 1, 1090 Wien

Geometry and Analysis on Groups

Dominik Gruber (Universität Wien) “On infinitely presented graphical small cancellation groups”

Link: <http://www.mat.univie.ac.at/~gagt/abstracts/150120.html>

Organized by G. Arzhantseva, Ch. Cashen

Dienstag, 20. Jänner 2015, von 15:15 bis 16:45 Uhr, TU Dissertantenraum, Freihaus,
Turm A, 8. Stock, Wiedner Hauptstraße 8-10, 1040 Wien

AG Diskrete Mathematik Seminar

Marie-Louise Bruner (TU Wien): „A combinatorial approach to structure in preference profiles”

Link: <http://dmg.tuwien.ac.at/nfn/agdm.html>

Donnerstag, 22. Jänner 2015, von 16:00 Uhr bis 18:00 Uhr, Josephinum,
SR (Zi. O2.101), Währingerstr. 25, 1090 Wien

KGRC Research Seminar

Franqui Solis Cardenas Poloche (Universidad Nacional de Colombia): “Unfoldable cardinals and some related problems”

(Details siehe Link: http://www.logic.univie.ac.at/Current_talk.html)

Donnerstag, 22. Jänner 2015, von 16:30 Uhr bis 18:00 Uhr, Seminarraum 9, 2 Stock
Oskar-Morgenstern-Platz 1, 1090 Wien

Vienna Seminar in Mathematical Finance and Probability

Dan Hackmann (York University, CA):

“Analytical methods for Lévy processes with applications to finance”

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