



Vorträge

**Montag, 24. Februar 2014, ab 9:15 Uhr, Seminarraum 9, 9. Stock,
Oskar-Morgenstern-Platz 1, 1090 Wien**

Vortrag

Univ.-Prof. Dr. Christian Klingenberg (Universität Würzburg): “Understanding the evolution of the universe: how mathematical and numerical methods are essential”

Abstract

We will talk about our contribution to a large project with the goal of a self-consistent numerical simulation of the evolution of the universe beginning soon after the Big Bang and ending with the formation of realistic stellar systems like the Milky Way. This is a multi-scale problem of vast proportions. It requires the development of new numerical methods that excel in accuracy, parallel scalability, and physical fidelity to the processes relevant in galaxy formation. These numerical methods themselves require the development of mathematical theory in order to guarantee the above mentioned requirements.

The lecture will be illustrated by movies that show numerical simulations related to the evolution of the universe. This will go beyond our own contributions and also show simulations of my collaborators Volker Springel and Fritz Röpke.

**Montag, 24. Februar 2014, ab 15:00 Uhr, Seminarraum 9, 9. Stock,
Oskar-Morgenstern-Platz 1, 1090 Wien**

Öffentliche Defensio

Mag.rer.nat Natalie Happenhofer: „Efficient Time Integration of the governing Equations in Astrophysical Hydrodynamics“

**Montag, 24. Februar 2014, ab 9:00 Uhr bis Freitag, 28. Februar 2014, ab 9:00 Uhr,
Erwin Schrödinger Lecture Hall, Boltzmannng. 9, 1090 Wien**

ESI String Geometry Meeting

“Modern Trends in Topological Quantum Field Theory”

**Organized by J. Fuchs, L. Katzarkov, N. Reshetikhin, and Ch. Schweigert
(Details siehe Attachment)**

**Mittwoch,, 26. Februar 2014, ab 9:30 Uhr, Erwin Schrödinger Lecture Hall, Boltzmannng. 9,
1090 Wien**

ESI Seminar

Prof. Nils Carqueville (SUNY Stony Brook): “Equivariant completion of defect bicategories”

Organized by: J. Fuchs, L. Katzarkov, N. Reshetikhin, C. Schweigert

**Donnerstag, 27. Februar 2014, ab 14:00 Uhr bis Samstag, 1. März 2014, ab 10:00 Uhr,
Erwin Schrödinger Lecture Hall, Boltzmannng. 9, 1090 Wien**

4th Central European Relativity Seminar

**Organized by: L. Andersson, R. Beig, P. Bizon, P. Chrusciel, H. Friedrich
(Details siehe Attachment)**

**Freitag, 28. Februar 2014, von 14:15 Uhr bis 16:00 Uhr, Seminarraum 9, 9. Stock,
Oskar-Morgenstern-Platz 1, 1090 Wien**

Arbeitsgemeinschaft Ergodentheorie

Peter Szmolyan (TU Wien): „Geometric singular perturbation theory beyond the standard form”

http://mat.univie.ac.at/~zweimueller/AG_ETHY.html