

Schedule of Talks

“4th Central European Relativity Seminar”

organized by

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Golm)

February 27 - March 1, 2014

- **Thursday, February 27, 2014**

13:30 **Opening & Registration**

14:00 – 14:20 **Matyas Vasuth**

Spin-orbit effects in the recoil of binary systems

14:20 – 14:40 **Robert Svarc**

Kundt spacetimes: algebraic structure and geodesic deviation

14:40 – 15:00 **Sebastian Moeckel**

Solutions associated with the point symmetries of the hyperbolic Ernst equation

15:00 – 15:30 *tea/coffee break*

15:30 – 15:50 **Jedrzej Swiezewski**

Geometrical observables for General Relativity related to distances and angles

15:50 – 16:10 **Patryk Mach**

Accretion in spacetimes with the cosmological constant

16:10 – 16:30 **Clemens Sämann**

On geodesics in impulsive gravitational waves

16:30 – 17:00 *break*

17:00 – 17:20 **Andras Laszlo**

Spectral methods in time evolution of non-linear PDEs and application in study of superradiance

17:20 – 17:40 **Martin Scholtz**

On the existence and properties of helically symmetric systems

• **Friday, February 28, 2014**

09:40 – 10:00 **David Fajman**

Future complete spacetimes with spherical spacelike topology in 2+1- dimensions

10:00 – 10:20 **Anna Sakovich**

A Jang equation approach to positive mass theorem for asymptotically hyperbolic initial data

10:20 – 10:40 **Tim Paetz**

The mass of light cones

10:40 – 11:00 **Klaus Kroencke**

Stability of Einstein Manifolds

11:00 – 11:30 *tea/coffee break*

11:30 – 12:00 **Cecile Huneau**

Vacuum constraint equations for asymptotically flat space-times with a translational Killing field.

12:00 – 12:20 **Ivica Smolić**

Elusive Effects of Gravitational Chern-Simons Terms

12:20 – 12:40 **Daniel Barta**

Dispersion of gravitational waves in cold spherical interstellar medium

12:40 – 14:00 *lunch break*

14:00 – 14:20 **Michal Kahl**

Wave maps on a wormhole

14:20 – 14:40 **Roger Tagne**

On the characteristic initial value problem for nonlinear symmetric hyperbolic systems with application to semi-linear wave equations on a Lorentzian manifold

14:40 – 15:00 **Jinhua Wang**

A Large Data Regime for non-linear Wave Equations

15:00 – 15:30 *break*

15:30 – 15:50 **Thomas Bäckdahl**

Symmetry operators and conserved currents

15:50 – 16:10 **Annegret Burtscher**

Self-gravitating collapse of compressible matter under spherical symmetry

16:10 – 16:30 **Maciej Maliborski**

On the (in)stability of asymptotically anti-de Sitter spacetimes

16:30 – 16:50 **Martin Reiris**

Instability of the extreme Kerr-Newman black-holes

Evening session to mark Bobby Beig's retirement:

17:30 – 18:00 **Helmut Friedrich**

Afloat in space, time and water

18:00 – 18:30 **Robert Beig**

Upstairs and downstairs: my life with tensors

19:15 Heurigen Evening (place to be announced)

• **Saturday, March 1, 2014**

10:00 – 10:20 **Rodrigo Panosso Macedo**

Physical properties of perturbed Kerr black holes in APMC slices

10:20 – 10:40 **Mikołaj Korzysński**

Backreaction and continuum limit in a closed universe filled with black holes

10:40 – 11:00 **Sebastian Szybka**

Inhomogeneity effect in Wainwright-Marshman space-times

11:00 – 11:30 *break*

11:30 – 11:50 **Gabor Zsolt Toth**

Test of the weak cosmic censorship conjecture with a charged scalar field and dyonic Kerr-Newman black holes

11:50 – 12:10 **David Hilditch**

Recent progress in the numerical treatment of collapsing gravitational waves

12:10 – 12:30 **Norbert Bodendorfer**

Loop quantum gravity in higher dimensions

All lectures take place in the ESI Boltzmann Lecture Hall