

Programme on
“Geometry and Relativity”

July 17 – September 8, 2017

organized by

**Robert Beig (U Vienna), Piotr T. Chruściel (U Vienna), Michael Eichmair (U Vienna),
Greg Galloway (U Miami), Richard Schoen (UC, Irvine), local organization: Tim-Torben Paetz
(U Vienna)**

Conference: Between Geometry and Relativity

July 24 – 28, 2017

• **Monday, July 24, 2017**

08:30 – 09:30 **Opening and Registration**

09:30:00 – 10:30 **Richard Schoen (U Irvine)**

The high dimensional positive energy theorem

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Lan-Hsuan Huang (U Connecticut)**

Equality in the Spacetime Positive Mass Theorem

12:00 – 14:00 *Lunch Break*

14:00 – 15:00 **Michael Eichmair (U Vienna)**

The large-scale isoperimetric structure of initial data

15:00 – 15:30 *Break*

15:30 – 16:30 **Pengzi Miao (U Miami)**

Minimal hypersurfaces, isometric embeddings, and manifolds with nonnegative scalar curvature

• **Tuesday, July 25, 2017**

09:30:00 – 10:30 **André Neves (U Chicago)**

Weyl Law and the volume spectrum

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Neshan Wickramasekera (Cambridge U)**

Regularity of stable CMC hypersurfaces

12:00 – 14:00 *Lunch Break*

14:00 – 15:00 **Greg Galloway (U Miami)**

Topology and singularities in general relativity

15:00 – 15:30 *Break*

15:30 – 16:30 **Mattias Dahl (U of Stockholm)**

Outermost apparent horizons with non-trivial topology

• **Wednesday, July 26, 2017**

09:30:00 – 10:30 **Alessandro Carlotto (ETH Zurich)**

From scalar curvature rigidity phenomena to min-max embedded geodesic lines

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Michael Kunzinger (U Vienna)**

Singularity theorems in regularity $C^{1,1}$

Free Afternoon

• **Thursday, July 27, 2017**

09:30:00 – 10:30 **Helmut Friedrich (MPI, Golm)**

Einstein-lambda-matter flows near future time-like infinity

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Robert Wald (U Chicago)**

Canonical Energy

12:00 – 14:00 *Lunch Break*

14:00 – 15:00 **Marc Mars (U of Salamanca)**

Geometry of null shells

15:00 – 15:30 *Break*

15:30 – 16:30 **Mu-Tao Wang (Columbia U)**

Linear stability of Schwarzschild black holes: the Cauchy problem for metric coefficients

• **Friday, July 28, 2017**

09:30:00 – 10:30 **Nicolaos Kapouleas (Brown U)**

Recent gluing constructions in Differential Geometry

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Gerhard Huisken (U Tübingen)**

Inverse mean curvature flow for entire graphs

12:00 – 14:00 *Lunch Break*

14:00 – 15:00 **Jan Metzger (U Potsdam)**

On the uniqueness of small surfaces minimizing the Willmore functional subject to a small area constraint

All talks take place at the Lise Meitner Lecture Hall, 1st floor, Faculty of Physics, Strudlhofgasse 4/Boltzmannngasse 5, 1090 Vienna!

See http://www.univie.ac.at/AGESI_2017/conference/schedule.html for possible last-minute changes of the schedule.