

“Week 3”

September 6 - 10, 2021

of the Thematic Programme

“Geometry for Higher Spin Gravity: Conformal Structures, PDEs, and  
Q-manifolds”

August 23, 2021 - September 17, 2021

organized by

Xavier Bekaert (U Tours), Andreas Cap (U Vienna), Stefan Fredenhagen (U Vienna), Maxim  
Grigoriev (Lebedev Inst. & Lomonosov Moscow SU), Alexei Kotov (U Hradec Králové)

• **Monday, September 6th, 2021**

09:00 – 09:30 **Registration**

09:30 – 10:30 **Lecture by Michael Eastwood (Adelaide U)**

*Conformal differential geometry - the ambient metric and tractor connection 2*

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **Lecture by Tim Adamo (U Edinburgh)**

*Lecture 1: Twistors and amplitudes*

12:00 – 14:00 **Lunch**

14:00 – 15:00 **Karapet Mkrtchyan (Imperial College, London)**

*Manifestly Duality Symmetric Electrodynamics*

15:00 – 15:30 **Coffee break**

• **Tuesday, September 7th, 2021**

09:30 – 10:30 **Jan Slovak (Masaryk U, Brno)**

*Calculus on Symplectic Manifolds*

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **Lecture by Tim Adamo (U Edinburgh)**

*Lecture 2: Ambitwistors and amplitudes*

12:00 – 14:00 **Lunch**

14:00 – 15:00 **Igor Khavkine (IM CAS)**

*Homotopy transfer for conserved currents and rigid symmetries in gauge theories*

15:00 – 15:30 **Coffee break**

• **Wednesday, September 8th, 2021**

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **Dario Francia (U Roma III)**

*Lagrangian double copy to cubic order*

12:00 – 14:00 **Lunch**

14:00 – 15:00 **Lecture by Joseph Krasil'shchik (IUM)**

*Geometry of PDEs: an overview*

15:00 – 15:30 **Coffee break**

15:30 – 16:30 **Andrew Waldron (UC Davis)**

*Quantization of Contact Structures*

- **Thursday, September 9th, 2021**

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **Branislav Jurco (Charles U, Prague)**

*TBA*

12:00 – 14:00 **Lunch**

14:00 – 15:00 **Lecture by Joseph Krasil'shchik (IUM)**

*Geometry of PDEs: an overview*

15:00 – 15:30 **Coffee break**

15:30 – 16:30 **Per Sundell (UNAB, Santiago)**

*Quantum field theory as a topological sigma.model*

- **Friday, September 10th, 2021**

09:30 – 10:30 **Boris Doubrov (BSU)**

*Non-regular parabolic geometries via the notion of bi-filtered manifolds*

10:30 – 11:00 **Coffee break**

12:00 – 14:00 **Lunch**

14:00 – 15:00 **Lecture by Alexander Verbovetsky (IUM)**

*Geometry of PDEs: an overview*

15:00 – 15:30 **Coffee break**

**All talks take place at the Erwin Schrödinger Institute, Boltzmann lecture hall and virtual via zoom! Zoom coordinates are available on request ([secr@esi.ac.at](mailto:secr@esi.ac.at)) and after registration until August 27th, 2021.**