

Week 1 of the Workshop on
“Algebraicity and Transcendence for Singular Differential Equations”

October 7 - 11, 2024

organized by

Alin Bostan (INRIA Paris), Francis Brown (U Oxford), Herwig Hauser (U of Vienna), Shihoko Ishii (U Tokyo), Hiraku Kawanoue (Chubu U, Kasugai City), Michael Singer (Raleigh)

• **Monday, October 7th, 2024**

09:00 – 09:30 **Registration & Welcome**

09:30 – 10:45 **Julien Roques (U of Lyon)**

The p -Curvature Conjecture, I

11:00 – 12:45 **Michael Singer (North Carolina State U, Raleigh)**

Differential Galois Theory and the Algebraicity of Solutions, I

13:00 – 14:00 **Lunch Break**

14:00 – 15:30 **Duco van Straten (U of Mainz)**

Differential Equations, Geometry and Arithmetic, I

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Daniel Vargas-Montoya (IMT, Toulouse) & Masha Vlasenko (KSE, Kyiv)**

A p -adic Approach to Differential Equations, I

• **Tuesday, October 8th, 2024**

09:00 – 10:45 **Daniel Vargas-Montoya (IMT, Toulouse) & Masha Vlasenko (KSE, Kyiv)**

A p -adic Approach to Differential Equations, II

11:00 – 12:45 **Duco van Straten (U of Mainz)**

Differential Equations, Geometry and Arithmetic, II

13:00 – 14:30 **Lunch Break**

14:30 – 15:30 **Julien Roques (U of Lyon)**

Problem Session

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Michael Singer (North Carolina State U, Raleigh)**

Problem Session

• **Wednesday, October 9th, 2024**

09:00 – 10:45 **Michael Singer (North Carolina State U, Raleigh)**

Differential Galois Theory and the Algebraicity of Solutions, II

11:00 – 12:45 **Julien Roques (U of Lyon)**

The p -Curvature Conjecture, II

13:00 – 14:00 **Lunch Break**

14:00 – 15:30 **Daniel Vargas-Montoya (IMT, Toulouse) & Masha Vlasenko (KSE, Kyiv)**
Problem Session

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Duco van Straten (U of Mainz)**
Problem Session

- **Thursday, October 10th, 2024**

09:00 – 10:45 **Duco van Straten (U of Mainz)**
Differential Equations, Geometry and Arithmetic, III

11:00 – 12:45 **Daniel Vargas-Montoya (IMT, Toulouse) & Masha Vlasenko (KSE, Kyiv)**
A p -adic Approach to Differential Equations, III

13:00 – 14:30 **Lunch Break**

14:00 – 15:30 **Michael Singer (North Carolina State U, Raleigh)**
Problem Session

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Julien Roques (U of Lyon)**
Problem Session

- **Friday, October 11th, 2024**

09:00 – 10:45 **Julien Roques (U of Lyon)**
The p -Curvature Conjecture, III

11:00 – 12:45 **Michael Singer (North Carolina State U, Raleigh)**
Differential Galois Theory and the Algebraicity of Solutions, III

13:00 – 14:00 **Lunch Break**

14:00 – 15:30 **Duco van Straten (U of Mainz)**
Problem Session

15:30 – 16:00 **Coffee Break**

16:00 – 16:45 **Daniel Vargas-Montoya (IMT, Toulouse) & Masha Vlasenko (KSE, Kyiv)**
Problem Session

All talks take place at ESI Boltzmann Lecture Hall!