

**ESI SENIOR RESEARCH FELLOW  
LECTURE COURSE  
Summer Term 2015**

The Erwin Schrödinger International Institute of Mathematical Physics (ESI) of the University of Vienna offers the following Lecture Course held by a Senior Research Fellow in residence during the Summer Term 2015:

**Nonlinear elliptic equations in geometry**  
**Slawomir Kolodziej** (Jagiellonian U)

**Lecture Course (260130 VO):**  
**March 11 - 27, and April 14 - May 8, 2015,**  
**Wednesday and Friday 14:00 - 15:30**

Course website: <http://www.esi.ac.at/activities/events/2015/nonlinear-elliptic-equations-in-geometry>

Venue: ESI, Schrödinger Lecture Hall

Content:

The goal of this course is to highlight the role of weak solutions of the complex Monge-Ampère equation in finding singular canonical metrics in Kähler geometry or, equivalently, the limits of the Kähler-Ricci flow. The methods include: PDE a priori estimates and the continuity method, pluripotential theoretic approach based on the notion of the positive current and properties of plurisubharmonic functions, and the parabolic maximum principle for the Ricci flow.

Joachim Schwermer  
Director