

**ESI SENIOR RESEARCH FELLOW
LECTURE COURSE
Summer Term 2018**

The Erwin Schrödinger International Institute for Mathematics and Physics (ESI) of the University of Vienna offers the following Lecture Course held by a Senior Research Fellow in residence during the Summer Term 2018:

Introduction to Kinetic Theory: The Boltzmann Equation

Francis Filbet

Université Paul Sabatier, Toulouse III & Institut Universitaire de France

Lecture Course (442504 VO): July 30 to August 3, 2018

Time: 9:30 – 11:00 and 11:45 – 12:30 each

Start: Monday, July 30, 2018

Further Dates:

Tuesday, July 31, 2018

Wednesday, August 1, 2018

Thursday, August 2, 2018

Friday, August 3, 2018

Venue: ESI, Boltzmann Lecture Hall

Abstract: In this lectures we will focus on the Boltzmann equation for rarefied gas dynamics. After a short introduction of the physical background we will review some basic tools in analysis to study the existence of solution for the homogeneous Boltzmann equation. Then, some numerical approximation based on spectral methods will be presented and a rigorous convergence study will be performed.

Course website: <https://www.esi.ac.at/activities/events/2018/srf-course-francis-filbet-ss2018>

Ilaria Perugia
Deputy Director