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ESI Medal 2022

Award Ceremony on November 4, 2022 at the ESI, Boltzmann Lecture Hall

The Medal of the Erwin Schrödinger International Institute for Mathematics and Physics, or ESI Medal, awarded in 2020 for the first time, has been created to recognize outstanding achievements in any area of mathematics or physics, including contributions at the interface of the two fields.

Prof. Martin Hairer. Imperial College London, is honored for his groundbreaking work on stochastic partial differential equations (SPDEs). Physicists and mathematicians use SPDEs to describe physical systems which evolve in an environment permeated by randomness. However, for the modeling of some fundamental physical phenomena such as random interface growth, the mathematical tools developed over the past several centuries are insufficient to make sense of these singular, nonlinear, noise-driven equations, much less to solve them. In a remarkable breakthrough, Hairer's theory of regularity structures overcomes this barrier. It provides a powerful and coherent toolbox, which has already enabled the solution of several important SPDEs by him and his coauthors and which opens a pathway to new discoveries.

14:00 Welcome

Prof. Christoph Dellago ESI Director, University of Vienna

14:15 Convergence of the Ising-Kac model to Φ^4 in three dimensions Prof. Hendrik Weber

University of Münster

15:00 Thoughts on Regularity Structures Prof. Felix Otto *MPI MiS Leipzig*

15:45 Break

16:15 Laudatio Prof. Jan Maas *IST Austria*

16:45 Award—ESI Medal

17:00 Award Lecture Prof. Martin Hairer *Imperial College London*

17:45 Closing Prof. Christoph Dellago *ESI Director, University of Vienna*

Erwin Schrödinger International Institute for Mathematics and Physics

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