ESI MEDAL 2022 •AWARD CEREMONY



Erwin Schrödinger International Institute for Mathematics and Physics

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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 $\Phi^{4}$ 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

