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*ESI*

# CONCEPTS OF PROBABILITY IN THE SCIENCES
## OCTOBER 29–30, 2018

**Erwin Schrödinger International Institute for Mathematics and Physics**

**Symposium in the Boltzmann Lecture Hall**

**This symposium is dedicated to the many facets of the probability concept in the sciences**. Experts from various disciplines will give lectures aimed at researchers and students, in particular in physics, mathematics and the life sciences, interested in foundational issues and applications of probability.

organized by
**Christoph Dellago,** U Vienna, **Wolfgang Reiter,** U Vienna,
**Jakob Yngvason,** U Vienna

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## MONDAY, OCTOBER 29, 2018

09:00–09:15 **Opening**
—

09:15–10:15 **Jos Uffink,** U Minnesota
**The Interpretation of Probability**
—

10:15–11:05 **Sylvia Wenmackers,** KU Leuven
**(P)paradox = 100%**
—

11:05–11:40 **Coffee / Tea Break**
—

11:40–12:30 **Sandy Zabell,** Northwestern U
**The Tension between the Subjective and Objective Views of Chance**
—

12:30–14:00 **Lunch Break**
—

14:00–14:50 **Charlotte Werndl,** U Salzburg
**Calibration and Confirmation in Climate Science**
—

14:50–15:40 **Rüdiger Schack,** U London
**QBism and Normative Probability in Quantum Mechanics**
—

15:40–16:10 **Coffee / Tea Break**
—

16:10–17:00 **Udo Seifert,** U Stuttgart
**Beyond the Second Law: Probability in Stochastic Thermodynamics**
—

17:00–17:50 **Elliott H. Lieb,** Princeton U
**Understanding Entropy without Probability**


**Boltzmanngasse 9, 1090 Vienna / Austria**
**All talks take place at the ESI, Boltzmann Lecture Hall!**

## TUESDAY, OCTOBER 30, 2018

09:30–10:20 **Časlav Brukner,** U Vienna
**Wigner's Friend As a Rational Agent**
—

10:20–11:10 **Alexia Auffèves,** U Grenoble Alps
**What Is Quantum in Quantum Randomness?**
—

11:10–11:40 **Coffee / Tea Break**
—

11:40–12:30 **Jean Bricmont,** U catholique de Louvain
**Probabilistic Explanations and the Derivation of Macroscopic Laws**
—

12:00–14:00 **Lunch Break**
—

14:00–14:50 **Erik Curiel,** MCMP / Munich
**What Is Generic and What Is Special about the Universe?**
—

14:50–15:40 **Stefan Thurner,** Medical U Vienna
**Where Do All these Distribution Functions Come From?**
—

15:40–16:10 **Coffee / Tea Break**
—

16:10–17:00 **Gerhard Hummer,** MPIBP / Frankfurt am Main
**Inferring Statistical Ensembles from Experiment and Simulation**
—

17:00–17:50 **Peter Schuster,** U Vienna
**Chance and Randomness in Evolutionary Processes**
—

17:50–18:00 **Closing**