

Erwin Schrödinger Lecture

Thursday, December 6, 2018 – 5 p.m.

Boltzmann Lecture Hall, ESI, Boltzmannngasse 9, Vienna

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Dynamic Graph Algorithms: A Survey

Real-world graphs are huge and many of them change dynamically. Thus to compute properties of these graphs we need dynamic graph algorithms that efficiently maintain properties of dynamically changing graphs. We present the state-of-the-art in dynamic graph algorithms and explain some of the techniques that they use as well as recent progress in giving lower bounds for their running time.

Monika Henzinger is a professor of Computer Science at the University of Vienna and a former director of research at Google. She received a PhD from Princeton University in 1993 and subsequently held positions at Cornell University, Digital Equipment Corporation, the University of the Saarland and the École Polytechnique Fédérale in Lausanne. Monika Henzinger is the recipient of numerous grants and awards including an NSF Career Award, an honorary doctorate from the Technical University of Dortmund, as well as an ERC Advanced Grant. In her research, she focuses on combinatorial algorithms and data structure and their applications.

The Erwin Schrödinger Lectures are directed towards a general audience of mathematicians and physicists. In particular it is an intention of these lectures to inform non-specialists and graduate students about recent developments and results in some area of mathematics or physics.

The lecture will be followed by a reception in the spirit of Advent.

Christoph Dellago
Director