



Dr. Kathryn Hess
Keynote Speaker
Swiss Federal Institute of Technology, Lausanne, Switzerland

Short Biography

Dr. Kathryn Hess received her PhD in Algebraic Topology from Massachusetts Institute of Technology (MIT) and held positions at the universities of Stockholm, Nice and Toronto before moving to the EPFL, the Swiss Federal Institute of Technology in Lausanne, Switzerland, where she is now full professor of mathematics and life sciences. Her research focuses on algebraic topology and its applications, primarily in the life sciences, but also in materials science. In her work in applied topology, she has elaborated methods based on topological data analysis for high-throughput screening of nanoporous crystalline materials, classification and synthesis of neuron morphologies, and classification of neuronal network dynamics. She has also developed and applied innovative topological approaches to network theory.

She has won several teaching prizes at EPFL, including the Crédit Suisse teaching prize in 2011 and the Polysphère d'Or in 2013.

In 2016 she was elected to the Swiss Academy of Engineering Sciences and was named a fellow of the American Mathematical Society and a distinguished speaker of the European Mathematical Society in 2017. In 2021 she gave an invited public lecture at the European Congress of Mathematicians. She was awarded the Chaire de la Vallée Poussin by the Université Catholique de Louvain-la-Neuve in 2023 and was named a fellow of the Association for Women in Mathematics in 2024.