

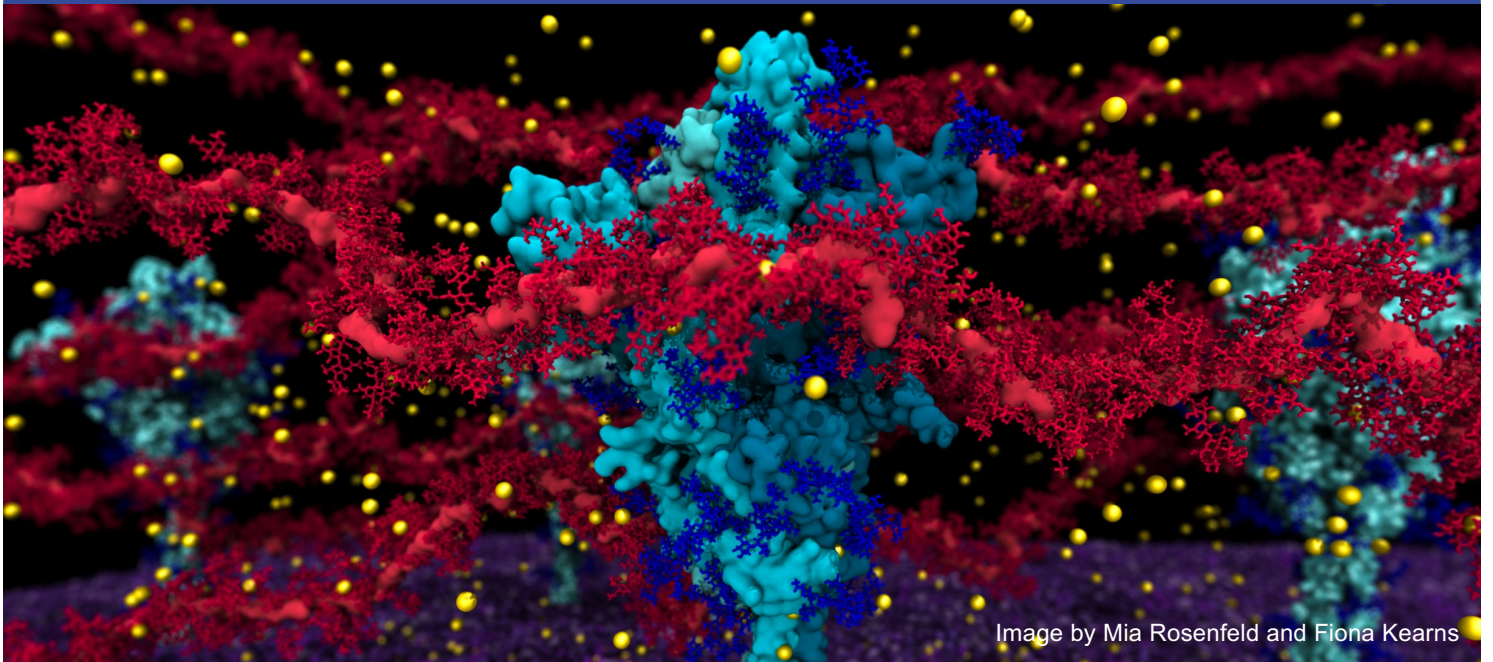


Image by Mia Rosenfeld and Fiona Kearns

Theory of living systems

Bridging theoretical physics and probability to biology and life sciences

October 6-7 2025

University of Freiburg, Germany

Over the past few years, there has been a surge in theoretical insights into the quantitative, physical basis of life, bridging theoretical physics and probability to biology and life sciences. As a part of the University of Freiburg's physics-driven, interdisciplinary approach to understanding living systems, the symposium will feature a selection of theoreticians that made innovative contributions on diverse aspects of the principles and laws that govern the emergence, organization, information processing, and thermodynamics of living matter.

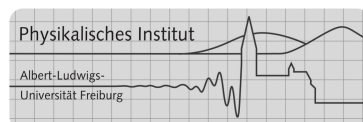
The goal is to identify analogies, differences, and controversies in theoretical approaches to living systems. Besides the scheduled talks, the program leaves ample time for discussions and exchange between different areas.

Invited Speakers (confirmed)

David Brückner (University of Basel, CH)
Giulia Laura Celora (Oxford University, UK)
Anna Erzberger (EMBL Heidelberg, GER)
Fabian Fröhlich (Francis Crick Institute, UK)
Edgar Roldan (ICTP Trieste, ITA)
Steffen Rulands (LMU Munich, GER)

Organizing Committee

Aljaž Godec (MPI-NAT Göttingen), Thorsten Hugel (Univ. of Freiburg), Carola Hunte (Univ. of Freiburg), Claudine Kraft (Univ. of Freiburg), Tanja Schilling (Univ. of Freiburg), Jens Timmer (Univ. of Freiburg), Joachim Dzubiella (Univ. of Freiburg), Ibrahim Cissé (MPI-IE Freiburg), Fiona Kearns (Univ. of Freiburg), Alexander Rohrbach (Univ. of Freiburg), Peter Pfaffelhuber (Univ. of Freiburg), Günter Reiter (Univ. of Freiburg)



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