

Physics Symposium

Complexity and Curiosity A tribute to Prof. Yi-Cheng Zhang

Wednesday, May 20, 2026, 14h00 – 19h00

Physics Department, Chemin Musée 3, PER08, room 1.50

The Department of Physics at the University of Fribourg is pleased to host a one-day symposium dedicated to Prof. **Yi-Cheng Zhang**, one of the most prominent and highly cited scientists in our faculty.

The symposium will focus on:

- Statistical physics
- Non-equilibrium phenomena
- Complex networks
- Information economics

Prof. Yi-Cheng Zhang made groundbreaking contributions to the physics of growing interfaces, most notably through the formulation of the **Kardar–Parisi–Zhang (KPZ) equation**, which describes the evolution of noisy growing interfaces. This framework is highly relevant to biological systems such as bacterial colony fronts, fungal growth, and cell monolayer expansion.

Beyond interface growth, he has made seminal contributions to complex networks and information economics, including the introduction of the **Minority Game**, a paradigmatic model for collective behavior in adaptive systems.

More broadly, the statistical physics of complex systems underpins bio-inspired materials, self-assembly, and pattern formation. Migration, growth, and assembly processes in nature are fundamentally governed by collective, often non-equilibrium dynamics.

Invited Speakers:

14h00-14h30 Paolo de Los Rios, EPFL, Lausanne

Theory and experiments on protein chaperone function

14h30-15h00 Matus Medo, University of Bern

Dark matter in genomic analyses

15h00-15h30 Damien Challet, Laboratoire MICS, CentraleSupélec, Université Paris Saclay

Inference: breaking the curse of optimality and causality

15h30-16h00 Coffee break

16h00-16h30 Matteo Marsili, International Centre for Theoretical Physics, Trieste

Enjoying physics beyond physics... and football

16h30-16h50 Discussion Session

Physics Colloquium:

16h50-17h50 Yi-Cheng Zhang, University of Fribourg

Retrospective and perspective on my adventures in complexity sciences research

18h00-19h00 Apéritif