

Session Program

7-11 Sept 2026



Free Boundary Problems 2026 Phase Field Methods in Real-World Applications

Humboldt Universität zu Berlin
Humboldt-Universität zu Berlin Unter den Linden 6 10099 Berlin

Tuesday 8 September

10:30

Phase Field Methods in Real-World Applications: MS-7-1

Session |

Location: HU (Hegelplatz), DOR24/Floor 1-Room 101 - Lecture Hall, HU Berlin Dorotheenstrasse 24 (Hegelplatz) 10117 Berlin |

Convener: Robert Lasarzik

10:30–11:00

Uniform higher order estimates for the sharp interface limit of a Navier-Stokes/Allen-Cahn system

Speaker

Prof. Helmut Abels

11:00–11:30

Homogenization of Viscoelastoplastic Flows in Randomly Perforated Domains

Speaker

Fan Cheng

11:30–12:00

Long-time dynamics of a convective Cahn--Hilliard model with dynamic boundary conditions

Speaker

Jonas Stange

12:00–12:30

Global weak solutions to a diffuse-interface model for quasi-incompressible two-phase flows with unmatched densities and singular potential

Speaker

Yadong Liu

12:30

16:30

Phase Field Methods in Real-World Applications: MS-7-2

Session |

Location: HU (Hegelplatz), DOR24/Floor 1-Room 101 - Lecture Hall, HU Berlin Dorotheenstrasse 24 (Hegelplatz) 10117 Berlin |

Convener: Robert Lasarzik

16:30–17:00

Optimal control of a tumor growth model with hyperbolic relaxation of the chemical potential

Speaker

Jürgen Sprekels

17:00–17:30

The Cahn-Hilliard Equation with Nonlinear Diffusion Beyond Convexity

Speaker

Monica Conti

17:30–18:00

Analysis and coarsening dynamics of the Active Cahn-Hilliard equation

19:00

Speaker

Abramo Agosti

18:00–18:30

Split-step algorithms for generalized gradient systems in phase-field models

Speaker

RICCARDA ROSSI

18:30–19:00

A multiphase model for saline droplets

Speaker

Erica Ipocoana

Thursday 10 September

10:30

Phase Field Methods in Real-World Applications: MS-7-3

Session |

Location: HU (Main Building), Main Building/Floor 1-Room 2091 - Lecture Hall, HU Berlin Main Building Unter den Linden 6 10117 Berlin |

Convener: Elisabetta Rocca

10:30–11:00

A constrained-growth problem.

Speaker

Ulisse Stefanelli

11:00–11:30

Curvature-driven pattern formation in biomembranes: A gradient flow approach

Speaker

Dennis Trautwein

11:30–12:00

Nonlocal-to-local convergence of convolution operators and its application to phase-field models

Speaker

Patrik Knopf

12:00–12:30

A morphoelastic phase field model predicts buckling instability in tumor growth

Speaker

Sebastian Aland

12:30

14:00

Phase Field Methods in Real-World Applications: MS-7-4

Session |

Location: HU (Main Building), Main Building/Floor 1-Room 2091 - Lecture Hall, HU Berlin Main Building Unter den Linden 6 10117 Berlin |

Convener: Robert Lasarzik

14:00–14:30

Well-posedness, Darcy limit, and optimal control for a Brinkman-Cahn-Hilliard phase-field system with curvature effects

Speaker

Prof. Pierluigi Colli

15:00–15:30

Growth of active droplets by chemical reactions: Instability and splitting

Speaker

Kei Fong Lam

15:30–16:00

A phase field model of Cahn-Hilliard type for tumour growth with mechanical effects and damage

Speaker

Giulia Cavalleri

16:00