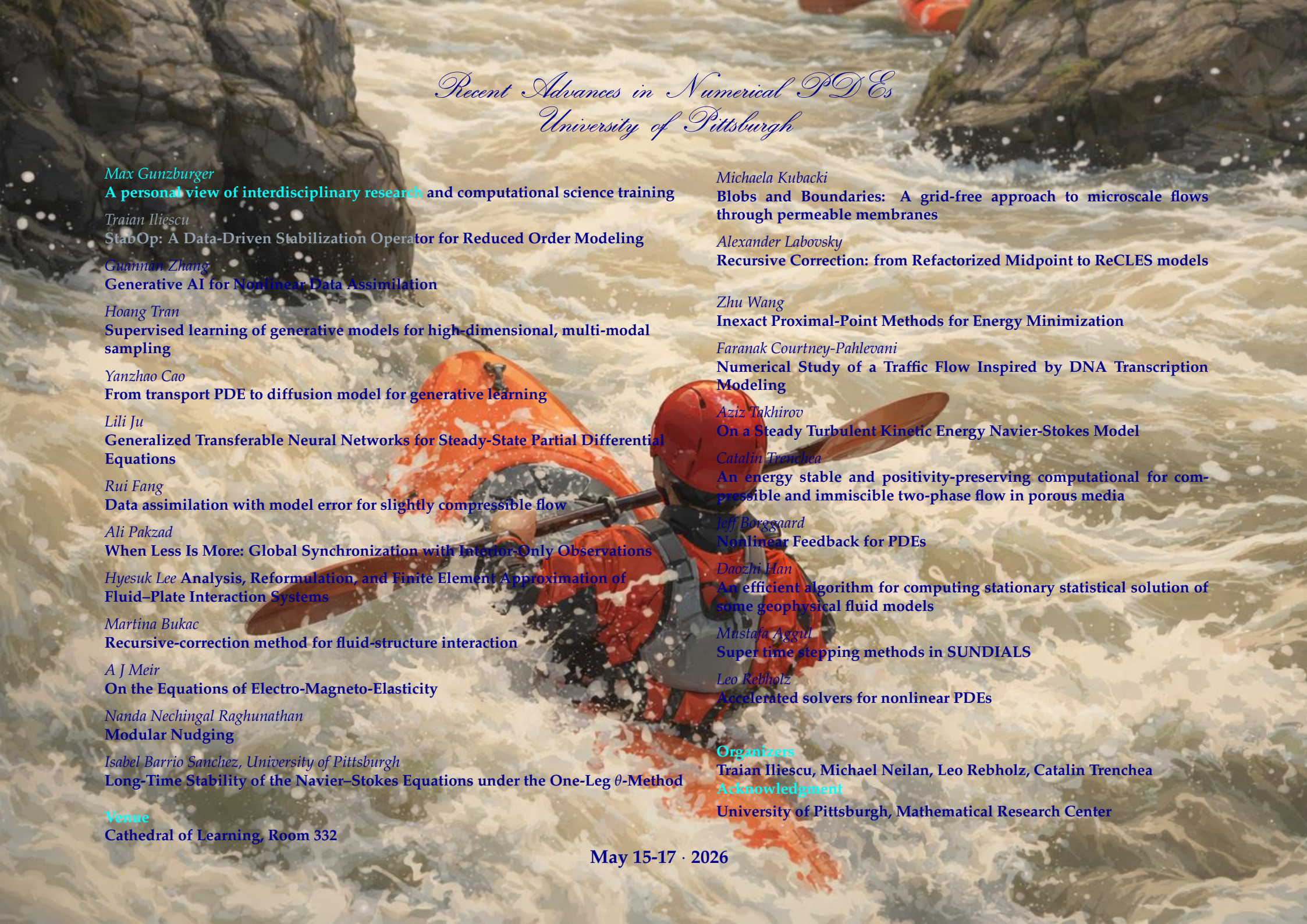

Recent Advances in Numerical PDEs
University of Pittsburgh

Max Gunzburger
A personal view of interdisciplinary research and computational science training

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StabOp: A Data-Driven Stabilization Operator for Reduced Order Modeling

Guannan Zhang
Generative AI for Nonlinear Data Assimilation

Hoang Tran
Supervised learning of generative models for high-dimensional, multi-modal sampling

Yanzhao Cao
From transport PDE to diffusion model for generative learning

Lili Ju
Generalized Transferable Neural Networks for Steady-State Partial Differential Equations

Rui Fang
Data assimilation with model error for slightly compressible flow

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When Less Is More: Global Synchronization with Interior-Only Observations

Hyesuk Lee **Analysis, Reformulation, and Finite Element Approximation of Fluid–Plate Interaction Systems**

Martina Bukac
Recursive-correction method for fluid-structure interaction

A J Meir
On the Equations of Electro-Magneto-Elasticity

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Modular Nudging

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Long-Time Stability of the Navier–Stokes Equations under the One-Leg θ-Method

Michaela Kubacki
Blobs and Boundaries: A grid-free approach to microscale flows through permeable membranes

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Recursive Correction: from Refactorized Midpoint to ReCLES models

Zhu Wang
Inexact Proximal-Point Methods for Energy Minimization

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Numerical Study of a Traffic Flow Inspired by DNA Transcription Modeling

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On a Steady Turbulent Kinetic Energy Navier-Stokes Model

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An energy stable and positivity-preserving computational for compressible and immiscible two-phase flow in porous media

Jeff Borggaard
Nonlinear Feedback for PDEs

Daozhi Han
An efficient algorithm for computing stationary statistical solution of some geophysical fluid models

Mustafa Aggul
Super time stepping methods in SUNDIALS

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Accelerated solvers for nonlinear PDEs

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Cathedral of Learning, Room 332

Organizers
Traian Iliescu, Michael Neilan, Leo Rebholz, Catalin Trenchea

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