Focused Research Group Workshop on

Variationally Stable Neural Networks

Columbia, SC, February 16-17, 2024

The workshop will take place in Sumwalt 219 (1212 Greene St.). It features three sessions in which the presentations will be mixed with discussions and short breaks. The order of the presentations is suggested but not guaranteed.

9:30 am – 12:30 pm Friday, February 16, 2024

- Leszek Demkowicz, University of Texas at Austin
  DPG enables the use of multiple variational formulations
- Wolfgang Dahmen and Zhu Wang, University of South Carolina
  Certifiability of Primal-Dual-Methods for GAN
- Leszek Demkowicz, University of Texas at Austin
  The double adaptivity method. Theory and 2D experiments

2:00 pm – 5:00 pm Friday, February 16, 2024

- Jonathan Zhang, University of Texas at Austin
  Variational Formulations for the Cook's Membrane Problem
- Jay Gopalakrishnan, Portland State University
  Applications in Optics
- Yuan Qiu, Georgia Tech
  Derivative-enhanced deep operator network

9:30 am – 12:00 noon Saturday, February 17, 2024

- Hong Wang, University of South Carolina
  Variable-order FPDEs for anomalous transport in heterogeneous media and vibration of viscoelastic structures: modeling, analysis, and control
- Peng Chen, Georgia Tech
  Scalable neural operator for Bayesian optimal experimental design