



2025 SIAM NNP Conference Schedule

Saturday, Nov 1

8:00 AM - 8:30 AM Registration

8:30 AM - 9:30 AM **Plenary Talk:** George Karniadakis (Brown University)

9:30 AM - 10:00 AM Coffee Break

Parallel Sessions:

- Room 111: Theory, Computation, and Applications for Nonlocal Models (1)
- Room 112: Advances in the Mathematics of Infectious Diseases
- Room 117: Recent Mathematical and Computational Modeling Advances in Life Sciences (1)
- Room 118: Recent Advances of Innovative Numerical Methods for Nonlinear PDEs (1)
- Room 119: Computational Thermodynamics: Energy and Energy Landscape (1)
- Room 120: Partial Differential Equations: Theory and Computations (1)
- Room 121: Quantifying and Controlling Uncertainty in Complex Systems (1)
- Room 122: Recent Advances in Scientific Machine Learning Arising from PDEs (1)

- 10:00 AM - 12:00 PM**
- Room 124: Recent Developments for Numerical Methods for PDEs (1)
 - Room 125: Computational and Probabilistic Methods: From Theory to Practice (1)
 - Room 207: Physics-Guided & Generative AI for Scientific Computing (1)
 - Room 208: Optimal Transport in Biological Sciences (1)
 - Room 209: Low-Rank Adaptation for Efficient Fine-Tuning in Foundation Models
 - Room 210: Nonlinear Waves in Fluids (1)
 - Room 215: Recent advances in quantum machine learning (1)
 - Room 216: Advances in Modeling and Computation of Transport Problems (1)
 - Room 217: Scientific Machine Learning with Robust Computation (1)
 - Room 218: Contributed Talks (1)
 - Room 219: Contributed Talks (2)
 - Room 110: Computational Dynamics

12:00 PM - 1:30 PM Lunch & Poster Session



Saturday, Nov 1

1:30 PM - 2:30 PM

Plenary Talk: Abba Gumel (University of Maryland)

Parallel Sessions:

- Room 216: Recent Advances in Numerical Scheme-Inspired Data-driven Methods
- Room 220: Scientific Machine Learning for Dynamical Systems and Inverse Problems
- Room 110: Recent Developments in Applied Inverse Problems and Imaging (1)
- Room 111: Theory, Computation, and Applications for Nonlocal Models (2)
- Room 112: Mathematical modelling for infectious diseases and interventions
- Room 113: AI for Math
- Room 117: Recent Mathematical and Computational Modeling Advances in Life Sciences (2)
- Room 118: Recent Advances of Innovative Numerical Methods for Nonlinear PDEs (2)
- Room 119: Computational Thermodynamics: Energy and Energy Landscape (2)
- Room 120: Partial Differential Equations: Theory and Computations (2)
- Room 121: Quantifying and Controlling Uncertainty in Complex Systems (2)
- Room 122: Recent Advances in Scientific Machine Learning Arising from PDEs (2)
- Room 124: Recent Developments for Numerical Methods for PDEs (2)
- Room 125: Computational and Probabilistic Methods: From Theory to Practice (2)
- Room 207: Physics-Guided & Generative AI for Scientific Computing (2)
- Room 208: Optimal Transport in Biological Sciences (2)
- Room 209: Foundation Models: From Theory to Practice (1)
- Room 210: Nonlinear Waves in Fluids (2)
- Room 215: Recent advances in quantum machine learning (2)
- Room 217: Scientific Machine Learning with Robust Computation (2)
- Room 218: Contributed Talks (3)
- Room 219: Contributed Talks (4)
- Room 222: New Algorithms and Theory for Reinforcement Learning

2:30 PM - 4:30 PM

4:30 PM - 5:00 PM

Coffee Break

5:00 PM - 6:00 PM

Plenary Talk: Noel Walkington (Carnegie Mellon University)

6:30 PM - 8:00 PM

Banquet and Business Meeting

Sunday, Nov 2

8:00 AM - 8:30 AM

Registration

Parallel Sessions:

- Room 110: Recent Developments in Applied Inverse Problems and Imaging (2)
- Room 112: Experimental sciences and mathematical modeling
- Room 113: Multiscale Techniques in Scientific Machine Learning
- Room 117: Advances in Numerical Linear Algebra and Applications
- Room 118: Recent Advances of Innovative Numerical Methods for Nonlinear PDEs (3)
- Room 119: Computational Thermodynamics: Energy and Energy Landscape (3)
- Room 120: Partial Differential Equations: Theory and Computations (3)
- Room 121: Quantifying and Controlling Uncertainty in Complex Systems (3)
- Room 122: Recent Advances in Scientific Machine Learning Arising from PDEs (3)
- Room 124: Recent Developments for Numerical Methods for PDEs (3)
- Room 125: Computational and Probabilistic Methods: From Theory to Practice (3)
- Room 207: Physics-Guided & Generative AI for Scientific Computing (3)
- Room 208: Collective Behavior for Biologically Inspired and Social Systems
- Room 209: Foundation Models: From Theory to Practice (2)
- Room 210: Recent advances in low-rank methods and their applications
- Room 216: Advances in Modeling and Computation of Transport Problems (2)
- Room 217: Contributed Talks (5)
- Room 218: Contributed Talks (6)
- Room 219: Contributed Talks (7)

8:30 AM - 10:30 AM

10:30 AM - 11:00 AM

Coffee Break

11:00 AM - 12:00 PM

Plenary Talk: Jinchao Xu (KAUST & Penn State University)

12:00 PM - 12:15 PM

Closing Remarks