SCALA 2025: SCIENTIFIC COMPUTING AROUND LOUISIANA

	Tulane Uptown Campus (6823 St. Charles Ave.), Room: **Lavin-Bernick Center (LBC) 201**
Friday, March 14	
01:00 - 01:15 PM	Welcome
01:15 - 01:30 PM	Adnan Morshed (Tulane) Many Shades of the Elastoviscous Number
01:30 - 01:45 PM	Thi Ngoc Lan Trinh (Tulane) Estimation of Degradation rate in Biological cells
01:45 - 02:00 PM	Ebrahimi Meymand (LSU) Enhancing the Light Absorption in a MoS2 Coated Nanowire with Multilayer Structures Using Genetic Algorithm
02:00 - 02:15 PM	Jacob Kapita (LSU) Predicting appendicular lean mass (ALM), bone mineral density (BMD), and body fat percentage (BFP) using supervised Machine learning models.
02:15 -03:00 PM	coffee break
03:00 - 03:45 PM	Keynote: Sarah Olson (WPI) Regularized Stokeslets Methods to Model Microorganism Motility and Cell Division
03:45 - 04:00 PM	Zheng Wang (Tulane) Regularized Stokeslet segments in 2D
04:00 - 04:15 PM	Edem Mensah (LSU) Scientific Machine Learning for Advanced Geothermal Reservoir Modeling
04:15 - 04:45 PM	coffee break
04:45 - 05:00 PM	Zequn Zheng (LSU) A Novel Optimization Based Algorithm for Tensor Decomposition
05:00 - 05:15 PM	Monika Pandey (LSU) Barzilai-Borwein Methods for Nonlinear Composite Optimization
05:15 -05:30 PM	Hongfei Chen (Tulane) A one-point model for microswimmers in the inertial regime
6:00 - ?	(optional) π day free pizza and activities (Lavin-Bernick Center (LBC) Mezzanine)

	Tulane University Uptown Campus (6823 St. Charles Ave.), Room: **Dinwiddie 102**
Saturday, March 15	
Time	
09:00 - 09:15 AM	Jon Loftin (MATHWORKS) Accelerating Research with MATLAB
09:15 - 09:30 AM	Jeremy Shahan (LSU) Shape Optimization with an Unfitted Finite Element Method
09:30 - 09:45 AM	Gyaneshwar Agrahari (LSU) Predicting Health Biometrics using p-Laplacian based regression: A semi-suprvised ML algorithm
09:45 - 10:00 AM	Moslem Uddin (Tulane) Rosenbrock time integrator for enhancing the performance of regularized Stokeslet simulations
10:00 - 10:30 AM	coffee break
10:30 - 11:15 AM	Keynote: Julianne Chung (Emory U) Krylov subspace methods for inverse problems and uncertainty quantification
11:15 - 11:30 AM	Kiran Bist (LSU) Variational Information Bottleneck Approach to Phytoplankton Analysis in Coastal Waters
11:30 - 11:45 AM	Sang-Eun Lee (Tulane) Collective Dynamics of Self-avoidant, Secreting Particles
11:45 - Noon	Minh Vu (LSU) Balancing Reconstruction and Disentanglement in beta-VAE: A Study on 2D Shape Datasets
Noon - 01:15 PM	Networking Lunch
01:15 - 01:30 PM	Alex Nisbet (Tulane) How To Approximate Exactly
01:30 - 01:45 PM	Ayman Said (LSU) Enhancing Seismic Image Synthesis with Generative Models and High-Performance Computing for Subsurface CO_2 Storage Applications
01:45 - 02:00 PM	Xiangsheng Wang (U. Louisiana Lafayette) Classical Orthogonal Polynomials in Numerical Computations
02:00 - 02:15 PM	Irene Erazo Estrada (Tulane) Modeling Brownian Motion using the Method of Images for Regularized Stokeslets
02:15 - 02:45 PM	coffee break
02:45 - 03:00 PM	Yangwen Zhang (U. Louisiana Lafayette) Efficient Eigen-Decomposition for Low-Rank Symmetric Matrices in Graph Signal Processing: An Incremental Approach
03:00 - 03:15 PM	Ying Bi (Tulane) Nonstandard Finite Difference Method and applications in boundary value problems
03:15 - 03:30 PM	Kevin Luli (UC Davis) Algorithms for Constraint Interpolations
03:30 - 03:45 PM	Rubaiyat Bin Islam (Tulane) Dancing Microfibers in Shear and Vortical Flows
03:45 - 03:50 PM	Closing