Session Program

May 18 – 22, 2026

27th Conference of the International Linear Algebra Society (ILAS 2026)

Numerical Linear Algebra in Machine Learning

Virginia Tech
Blacksburg, VA 24061

Mon, May 18

11:00 AM

Numerical Linear Algebra in Machine Learning: A

Session | **Location:** Virginia Tech, McBryde Hall 113

11:00 – 11:25 AM

Understanding and Leveraging Adaptive Algorithms' Sensitivity to Change-of-Basis

Speaker
Adela DePavia

11:25 – 11:50 AM

Fast and explainable clustering in the Manhattan and Tanimoto distance

Speaker
Kaustubh Roy

11:50 AM – 12:15 PM

Numerical linear algebra with neural operator preconditioning for solving some parametric PDEs

Speaker
Yanfei Xiang

12:15 PM

2:00 PM

Numerical Linear Algebra in Machine Learning: B

Session | **Location:** Virginia Tech, McBryde Hall 113

2:00 – 2:25 PM

Universal Kronecker Core Factorization of the NTK: Quantifying Implicit Bias of Gradient Descent

Speaker
James Hazelden

2:25 – 2:50 PM

Principal Surjective Flows: Relaxing Bijection Assumption via the Smooth Co-Area Formula and Gram Determinants

Speaker
Haoran Ni

2:50 – 3:15 PM

Reduced- and Mixed-Precision Algorithms for QR Decomposition

Speaker
Eda Oktay

3:15 PM

3:45 PM

Numerical Linear Algebra in Machine Learning: C

Session | **Location:** Virginia Tech, McBryde Hall 113

3:45 – 4:10 PM

The Fréchet derivative of the tensor t-function

Speaker
Kathryn Lund

4:10 – 4:35 PM **Accurate Models of NVIDIA Tensor Cores**

Speaker
Mantas Mikaitis

4:35 – 5:00 PM **Reduced Rank Extrapolation for Matrix Equations**

Speaker
Xiaobo Liu

5:00 – 5:25 PM **Look-ahead mixed-precision inference of LLMs**

Speaker
Stanislav Budzinskiy

5:25 PM