



Numerical Linear Algebra in Quantum Computing and Machine Learning

Department of Computational and Data Sciences

21-22
Feb
2025

Venue
CDS
IISc

About the Workshop

The workshop (NLA-QCML) aims to advance the frontiers of computational science by uniting leading experts in traditional numerical methods, quantum computing, and machine learning. Through engaging discussions and collaborative exchanges, participants will explore the intersection of classical numerical techniques and quantum paradigms, revealing their combined potential to drive advancements in machine learning.

Attendees will gain a deeper understanding of the fundamentals of quantum computation and how quantum algorithms can revolutionize computational capabilities. Our experts will also address critical topics, including quantum error correction and post-quantum cryptography, ensuring a comprehensive understanding of the challenges and opportunities in this dynamic field. Additionally, the workshop will investigate large-scale machine learning algorithms, providing participants with practical insights to tackle computational challenges in big data environments. Special emphasis will be placed on pioneering applications in healthcare, particularly the role of artificial intelligence in medical imaging for precision medicine.

The workshop consists of structured discussion sessions and collaborative forums that foster meaningful knowledge exchange, enabling participants to explore quantum technologies through diverse perspectives.

Speakers

Highlights

- Numerical Linear Algebra in Quantum Computing and Machine Learning
- Quantum Computing and its applications
- Quantum Error Correction
- AI in medical imaging for precision medicine

Important Dates

Registration Starts: Jan 01, 2025

Registration Closes: Feb 17, 2025

Workshop Date: Feb 21– 22, 2025

Registration Fees

- BTech/MTech/MS/MSc/PhD: INR 1500 + GST
 - Post Doc: INR 2000 + GST
 - Faculty: INR 3500 + GST
 - Industry : INR 4500 + GST
- Note :** Accommodation (Not included)

Step-1

Step-2



[Webpage](#)



[Pay to register](#)



[Register here](#)

Organizers:

Convener: Prof. Ratikanta Behera

Chairperson: Prof. Venkatesh Babu Radhakrishnan

Committee Members: Prof. Ratikanta Behera

Prof. Jajati Keshari Sahoo

Prof. Sk. Safique Ahmad

+91 9310192034

ratikanta@iisc.ac.in