

# QLA

# MEETS

# QIT III

# WORKSHOP

Over many decades various mathematicians, computer scientists, physicists, and engineers have made amazing connections and links between quantitative linear algebra (QLA) and quantum information theory (QIT). Quantitative linear algebra lies at the intersection of topics such as discrepancy theory, spectral graph theory, random matrices, geometric group theory, ergodic theory, and von Neumann algebras. In particular, a specific emphasis is put on the connections between problems which arise in infinite-dimensional analysis, and those which arise quantitatively in finite-dimensions.

This year's workshop will focus on current trends in quantum information theory. In particular, on quantum channels and decoherence, quantum error correction, and Hamiltonian complexity.

## SPEAKERS

**Harriet Apel (University College London)**  
**Angela Capel-Cuevas (University of Tübingen)**  
**Alexander Müller-Hermes (University of Oslo)**  
**Anthony Munson (University of Maryland)**  
**Chinmay Nirkhe (IBM Quantum)**  
**Graeme Smith (University of Colorado Boulder)**

## WHEN

November 3–5, 2022

## WHERE

Illini Center  
Orange & Blue Room  
200 S. Wacker Drive, Floor 19  
Chicago, IL 60606

## WHO

Questions? Contact the workshop organizers:

- **Roy Araiza** (University of Illinois at Urbana-Champaign, IQIIST)
- **Marius Junge** (University of Illinois at Urbana-Champaign, IQIIST)
- **Felix Leditzky** (University of Illinois at Urbana-Champaign, IQIIST)
- **Thomas Sinclair** (Purdue University)

<https://bit.ly/QLA-QITIIWorkshop>