# TENSOR NETWORK BASED APPROACHES TO QUANTUM MANY-BODY SYSTEMS

ICCUB SCHOOL 2021 27 Sept - 1 Oct

## **PROGRAM OVERVIEW**

- Many-body entanglement
- Matrix-product states
- Projected entangled pair states
- Multi-scale entanglement renormalization ansatz
- Time-dependent variational principle
- Tensor network renormalization
- Bulk boundary correspondence
- Tensor networks for finite temperatures and dynamics
- Tensor networks as impurity solvers for dynamical mean field

## **INVITED SPEAKERS**

- Mari Carmen Bañuls (MPQ)
- Philippe Corboz (UVA)
- Antoine Tilloy (MPQ)
- Johannes Hauschild (Berkley)
- Salvatore Manmana (Goettingen)

Organized and supported by



Institut de Ciències del Cosmos UNIVERSITAT DE BARCELONA



# LOCAL ORGANIZING COMMITTEE

- L. Tagliacozzo (ICCUB)
- F. Verstraete (U. Ghent)
- N. Schuch (U. Vienna)
- F. Pollmann (TUM)

#### **CONTACT EMAIL**

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### **WEBSITE**

https://indico.icc.ub.edu/ev ent/116/

# **IMPORTANT DATES**

Early registration until July 15
Late registration until September 15



