Contribution ID: **76** Type: **not specified**

Tensor Networks for Computational Fluid Dynamics

This project aims to compare the tree tensor network ansatz against the matrix product states ansatz in solving partial differential equations within the realm of computational fluid dynamics. The performance analysis will be based on the compressibility of each ansatz as compared to direct numerical simulation.

Group

IT Zeuthen

Project Category

B5. Computing

Special Qualifications

Python or Julia programming skills, Concept of Tensor Networks, ITensors

Primary authors: ANGELIDES, Takis (CQTA (Centre f. Quantum Techno. a. Application)); GUO, Yibin (CQTA (Centre f. Quantum Techno. a. Application))