

**International Quantum Tensor Network: First Plenary Meeting**  
**UCL Gustave Tuck Lecture Theatre**  
**27<sup>th</sup>-29<sup>th</sup> June 2022**

**Monday 27<sup>th</sup> June: Simulation**

10.30am	Coffee
11.00am	Introduction: Aims of the Quantum Tensor Network
11.15am	Mari Carmen Banuls: "Finite energy properties with tensor networks and quantum devices"
12.00pm	Adam Smith "Infinite (quantum) MPS across topological phase transitions"
12.45pm	Lunch in South Cloister
2.00pm	Jens Eisert "Some new ideas on tensor networks to capture entanglement in quantum many-body systems"
2.45pm	Pedram Roushan "Toward discovering novel physics with a NISQ processor"
3.30pm	Tea/Poster Session in South Cloister
5.00pm	Group Discussion in the Gustave Tuck Lecture Theatre.

**Tuesday 28<sup>th</sup> June: Simulation/Q Machine Learning**

10.35am	Soonwon Choi "Quantum convolutional neural networks"
11.20am	Christopher Eichler "Realizing Quantum Convolutional Neural Networks on a Superconducting Quantum Processor"
12.45pm	Lunch in South Cloister
2.00pm	Johannes Hauschild "Holographic simulation"
2.45pm	Sonika Johri "Generative Quantum Learning"
3.30pm	Tea in South Cloister
4.30pm	Michael Foss-Feig "MPS on Honeywell/Quantinuum"
7.00pm	Conference Dinner Jeremy Bentham Room UCL

**Wednesday 29<sup>th</sup> June: Spoofing and Simulating Quantum Computers**

9.00am	Johnnie Gray "Hyper-optimised tensor network contraction"
9.45am	Miles Stoudenmire "Progress in Quantum Computer Simulation with Tensor Networks"
10.30am	Pan Zhang "Simulating the Sycamore quantum supremacy circuits"
11.15am	Coffee in South Cloister
12.00pm	Christa Zoufal "Quantum Methods for Probabilistic Graphical Models"
12.45pm	Lunch in South Cloister
2.30pm	Concluding Discussion in Gustave Tuck Lecture Theatre
4.00pm	Tea in South Cloister