

The Vienna Center for Quantum Science and Technology  
VCQ

invites you to a

## COLLOQUIUM TALK

by

**Dries Sels**  
(Flatiron/NYU)

### Bethe-Peierls approximation in the era of quantum computers

Tensor networks have been foundational tools in our understanding of many-body physics of one-dimensional systems. In this talk I will discuss efforts to move away from one-dimensional tensor networks towards networks of arbitrary structures. I will discuss how well established tools from statistical mechanics have propelled recent algorithmic advances and how these tools have been employed to efficiently simulate recent large scale quantum computations.

**Monday, 25 March 2024**

at Helmut Rauch Lecture Hall

Atominstytut Wien, Stadionallee 2, 1020 Vienna

17:00 Get-together with coffee and snacks!

17:30 VCQ Student talk

17:45 VCQ Colloquium Talk

**Host: Julian Leonard**