



Think & Drink

# Atomic Legos â Building quantum matter atom by atom

**Julian LÃ©onard**

Host:

Ultracold atoms offer a fascinating view of the quantum world. With optical microscopes, we can image and manipulate individual ultracold atoms and observe their quantum behaviour, for example quantum superpositions and entanglement. This unique control has established ultracold atoms as a leading platform for quantum simulation and computation. In my talk I will show how playing with just one or two ultracold atoms helps us to gain intuition about the quantum world. We can then use our atoms as building blocks to assemble new materials and explore new states of matter.

**Friday, January 24, 2025 04:00pm - 05:00pm**

Raiffeisen Lecture Hall, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.

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