

# QLUSTER TRAINING EVENT S3, T3 & T4



SEPTEMBER 16 - 20, 2024  
INNSBRUCK, AUSTRIA



# PROGRAM

Day 1

September 16, 2024

Ágnes-Heller-Haus, Innrain 52a

8:00am	Arrival
8:15am	Welcoming speech and program presentation
8:30am	<b>T4: Introduction and theoretical foundations of Molecular Dynamics by Dr Caraglio</b>
9:25am	Coffee break
9:45am	<b>T4: Molecular Dynamics and Langevin simulations in Soft (active) Matter by Dr Caraglio</b>
10:40am	Q&A/Discussions
10:50am	<b>T4: Beyond "brute force" Molecular Dynamics simulations by Dr Caraglio</b>
11:45am	Lunch
1:00pm	<b>T4: "QuantumOptics.jl" Julia package by Martin Fasser</b>
1:55pm	Q&A/Discussions
2:05pm	<b>T4: "QuantumOptics.jl" Julia package by Martin Fasser</b>
3:00pm	Coffee break
3:20pm	<b>T4: "QuantumOptics.jl" Julia package by Martin Fasser</b>



# PROGRAM

Day 2

September 17, 2024

Faculty of Chemistry and Pharmacy, Innrain 80

## IQQI CONFERENCE

<b>8:15am</b>	Welcome desk
<b>9:00am</b>	<b>Eugene Polzik</b>
<b>9:45am</b>	<b>Anton Zeilinger</b>
<b>10:30am</b>	Coffee break
<b>11:00am</b>	<b>Ana Asenjo-Garcia</b>
<b>11:45am</b>	<b>Jean Dalibard</b>
<b>12:30pm</b>	Lunch break
<b>2:30pm</b>	<b>Jelena Vuckovic</b>
<b>3:15pm</b>	<b>Wolfgang Ketterle</b>
<b>4:00pm</b>	Postersession

# PROGRAM

Day 3

September 18, 2024

Ágnes-Heller-Haus, Innrain 52a

**8:30am**

**T3: Introduction to ultracold atom many-body physics by Prof Gross**

**9:15am**

Q&A/Discussions

**9:45am**

Coffee break

**10:15am**

**T3: Quantum optics basics: Internal state (qubit) control by Prof Gross**

**11:00am**

Q&A/Discussions

**11:30am**

Lunch break

**1:00pm**

**T3: Quantum optics basics: Motion control by Prof Gross**

**1:45pm**

Q&A/Discussions

**2:15pm**

Coffee break

**2:45pm**

**T3: Rydberg atoms by Prof Gross**

**3:30pm**

Q&A/Discussions

# PROGRAM

Day 4

September 19, 2024

Ágnes-Heller-Haus, Innrain 52a

<b>8:30am</b>	<b>T3: Ultrasoft Rydberg interactions by Prof Gross</b>
<b>9:15am</b>	Q&A/Discussions
<b>9:45am</b>	Coffee break
<b>10:15am</b>	<b>T3: Rydberg dressing for many-body physics by Prof Gross</b>
<b>11:00am</b>	Q&A/Discussions
<b>11:30am</b>	Lunch break
<b>1:00pm</b>	<b>T4: Quantum many-body non-equilibrium problem in phase space by Prof Schachenmayer</b>
<b>1:55pm</b>	Q&A/Discussions
<b>2:05pm</b>	<b>T4: Quantum many-body non-equilibrium problem in phase space by Prof Schachenmayer</b>
<b>3:00pm</b>	Coffee break
<b>3:20pm</b>	<b>T4: Numerical approaches to quantum many-body non-equilibrium by Prof Schachenmayer</b>
<b>6:00pm</b>	Official dinner at Umbrüggler Alm

# PROGRAM

Day 5

September 20, 2024

Ágnes-Heller-Haus, Innrain 52a

**9:00am**

**S3: Ethical principles in science by Prof Rebitsch**

**10:50am**

Coffee break

**11:10am**

**S3: Scientific misconduct by Prof Rebitsch**

**1:00pm**

Lunch break

**3:00pm**

**S3: Discrimination in science by Dr Medicus**

**3:55pm**

Q&A/Discussions

**4:05pm**

**S3: Workshop in discrimination in science by Dr Medicus**

**5:00pm**

Closing remarks and farewell