

Reinforcement Learning for  
Autonomous Accelerators



# Welcome to the **RL4AA'24** COLLABORATION WORKSHOP

5–7 February 2024  
Salzburg, Austria





# Outline

- Introduction of the host organisation and the faculty
- Introduction of the organising committee and RL4AA
- Goals and expectations
- Logistics and housekeeping
- Social events
- Who to ask if you need any help

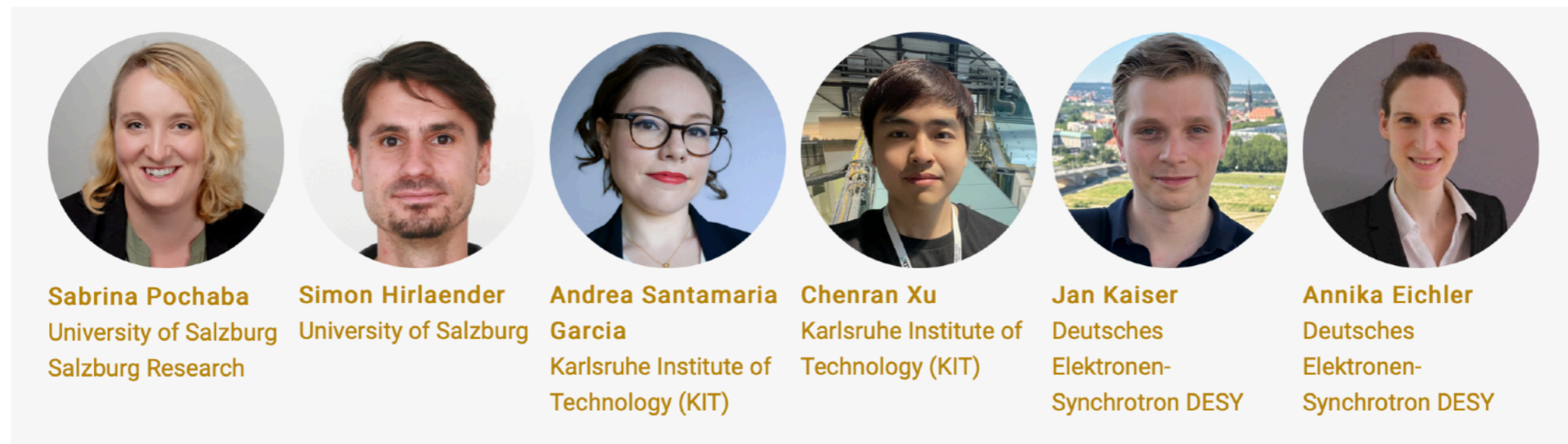


# Warm Welcome from the PLUS and IDA LAB

- Dean of DAS Faculty: Prof. Arne Bathke
- Director of the IDA Lab: Prof. Wolfgang Trutschnig

# Setting the context of this workshop

The RL4AA international collaboration was created to consolidate the existing knowledge, exchange experience and ideas, and work together towards accelerator-specific solutions using the latest advances in RL.



# One year ago...





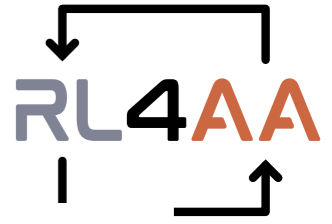
# How to reach out to us:

News and information: <https://rl4aa.github.io//>

Join our  
Discord  
server!



Or contact us directly via email



# Goals and Expectations of this workshop

- Connect RL researchers and enthusiasts in the particle accelerators community and other domains to share our experience.
- Teach and exchange fundamental RL concepts and show practical accelerator applications.
- Discuss the current challenges of developing RL algorithms for particle accelerators.
- Bring the field forwards in a collaborative way.



# Logistics and Housekeeping

- Time table: <https://rl4aa.github.io/RL4AA24/program/>
- The workshop is recorded and streamed via teams
- Presentations:
  - We offer Powerpoint and Keynote, if you use your own laptop please contact a local contact
  - Please upload your slides to indico: <https://indico.scc.kit.edu/event/3746/contributions/mine>
- Group photo at 15:00 today - please wait in front of the hall.
- Posters: Bring your poster on Tuesday morning, there are stands in the hall outside this room.
- Tutorial tomorrow: You need 1 GB free and python  $\geq 3.9$
- Meals are taken in the Mensa, which is 3 minutes away



# Social events

- Today (Monday):
  - Dinner 19:00 at <https://www.sternbrau.at>
- Tomorrow (Tuesday):
  - Salzburg tour: We start at 18:30 at the Mozartstatue
  - Dinner 19:45 <https://krimpelstaetter.at/>



# Encouragement for Interaction

- Take advantage of this unique networking opportunity
- We have some of the world's leading experts and really experienced people here - concentrated RL superpower!
- There are many presentations on diverse topics in RL and optimization
- There is a crash course today where you are invited to join the discussion
- We have a fresh tutorial on concepts at the boundary of RL to get you discussing



# If you need any help

- Don't hesitate to ask us
- Or any of the locals



Many thanks to all those who were involved  
in organising this event

# Thanks

Now let's have fun

