## AI/ML for Particle Accelerator, X-Ray Beamlines and Electron Microscopy

## Monday, 1 November 2021

## **Opening Session: Tuning and Control (10:00 - 12:15)**

## -Conveners: Michael Borland

| time  | [id] title   | presenter                          |
|-------|--|------------------------------------|
| 10:00 | [1] Opening Remarks  | MUSTAPHA, Brahim<br>HEINONEN, Olle |
|       | [2] Online tuning of particle accelerators with reinforcement learning and comprehensive surrogate models                | EDELEN, Auralee                    |
| 10:30 | [3] Automated Experiments, Machine Learning and Reinforcement Learning for tuning and control applications in microscopy | VASUDEVAN, Rama                    |
| 10:55 | [4] Bayesian Techniques for Accelerator Characterization and Control   | ROUSSEL, Ryan                      |
|       | [5] Simultaneous online optimization of dynamic acceptance and lifetime for APS  | SUN, Yipeng                        |
| 11:40 | [6] Open / Speaker Panel Discussion  |                                    |