



Contribution ID: 36

Type: **not specified**

## Machine Learning activities for accelerators @ KIT

*Wednesday, May 12, 2021 4:30 PM (20 minutes)*

The Institute for Beam Physics and Technology (IBPT) at the Karlsruhe Institute of Technology (KIT) hosts two research accelerator facilities, KARA and FLUTE, that serve as platforms for the development and testing of new beam acceleration technologies and new cutting-edge accelerator concepts, including Machine Learning (ML) methods. In this talk I will present three ML activities in accelerator physics carried out at KIT:

- Real-Time Control of the Micro-Bunching Instability with Reinforcement Learning
- Bayesian Optimization of the Injection Efficiency
- Machine Learning Towards Autonomous Accelerators: Control of the Bunch Profile with Reinforcement Learning

**Presenter:** SANTAMARIA GARCIA, Andrea (Karlsruhe Institute of Technology)

**Session Classification:** Machine Learning