IPAC'24 - 15th International Particle Accelerator Conference



Contribution ID: 717 Contribution code: TUPS74

Type: Poster Presentation

Breaking new ground in data-intensive science: first insights from the LIV.INNO center for doctoral training

Tuesday, 21 May 2024 16:00 (2 hours)

LIV.INNO is a new initiative which will train around 40 PhD students over three cohorts. It fosters innovation in data-intensive science, serves as a dynamic platform for collaboration between leading research organizations and the next generation of scientists. Within this context, several projects focus on research that intersects between data science and particle accelerator research.

This contribution showcases the early results from studies into optical transition radiation diagnostics for low energy ion beams, tailored Monte Carlo simulations for reactor ap-plications, and the reconstruction of the transverse beam distribution using machine learning. These early insights highlight the many benefits from collaborative R&D in data-rich accelerator environments. A summary of the training events offered by the center is also given.

Footnotes

Funding Agency

This work was supported by the Science and Technology Facilities Council (STFC) under grant agreement ST/W006766/1.

Paper preparation format

Word

Region represented

Europe

Primary author: Prof. WELSCH, Carsten (The University of Liverpool)

Presenter: Prof. WELSCH, Carsten (The University of Liverpool)

Session Classification: Tuesday Poster Session

Track Classification: MC6: Beam Instrumentation, Controls, Feedback, and Operational Aspects: MC6.D13 Machine Learning