Contribution ID: **62**   Type: **Plenary talk (only invited speakers)**

Embracing Digitalization for Neutron Science

Monday 19 June 2023 15:15 (15 minutes)

In recent years, the scientific community has witnessed an exponential growth in digitalization, presenting unprecedented opportunities for advancements in neutron science. This abstract aims to highlight the importance of embracing digitalization and incorporating cutting-edge technologies, specifically focusing on the utilization of artificial intelligence (AI) and other emerging "hot topics."

Neutron science plays a crucial role in various research areas, including materials science, chemistry, and biology. However, traditional methods for data analysis and interpretation often struggle to keep pace with the rapidly expanding volumes of data generated by modern neutron experiments. By integrating AI techniques into neutron science, researchers can unlock the potential to extract meaningful insights from vast datasets, accelerating scientific discoveries.

This talk will explore the application of AI in neutron science. Additionally, we will introduce other "hot topics" in digitalization, including data analytics, cloud computing, and high-performance computing, which can significantly enhance the efficiency and effectiveness of neutron research.

By embracing these digitalization strategies, researchers can overcome challenges, streamline workflows, and improve the accuracy and reproducibility of neutron experiments. Furthermore, we will discuss future trends and potential collaborations that can help advance the field of neutron science through digitalization.

Join us for an engaging discussion that will inspire attendees to adopt AI and other digitalization techniques, fostering innovation and opening new frontiers in neutron science.

Note: Title and abstract of this contribution were created by ChatGPT 3.5 (May 12 Version) and slightly edited by the author. Prompt: "Write an abstract of roughly 200 words for a scientific conference. The topic is 'digitalization for neutron science' and the talk will try to encourage the attendees to make more use of artificial intelligence and other 'hot topics' in digitalization."

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