We are delighted to invite you to an upcoming seminar, part of the School of Physics Seminar Series:

Date: Tuesday, 13th May

Time: 12:00 – 1:00 PM

Room: N201

Title: Digital Twins in the Biotech Industry: Prerequisites and Potentials.

Abstract:

The biotech industry is struggling with lack of robustness, long time to market periods and cost pressure.

On the other hand data is the new gold. How can data be used to reach business goals?

This contribution shows how digital twins can be derived from data using data driven but also mechanistic approaches. Subsequently the twins are deployed for multiple use cases. The use cases range from offline process optimization over process prediction to real time process control and can be applied to single unit operations as well as to entire process chains in end-to-end solutions.

As a prerequisite to grasp this large potential of digital twins, data need to be managed and contextualized to ensure data quality. This is done in digital transformation programs.

Speaker Bio:

Christoph Herwig, bioprocess engineer from RWTH Aachen, worked in industry in the design and commissioning of large chemical facilities prior to entering his interdisciplinary PhD studies at EPFL, Switzerland in bioprocess identification. Subsequently he positioned himself at the interface between bioprocess development and facility design in biopharmaceutical industry. From 2008 to 2023, he was a full professor for biochemical engineering at the Vienna University of Technology. The research area focuses on the development of data science methods for integrated and efficient bioprocess development along PAT and QbD principles for biopharmaceuticals. In 2013 he founded the company Exputec, which is now part of Körber Pharma Austria, pioneering data science software solutions for the biopharma life cycle. Here, Christoph currently acts as senior scientific advisor for Körber.