BND Graduate School 2024

Monday, 2 September 2024 - Thursday, 12 September 2024

Corsendonk Duinse Polders

Scientific Programme

An overview of scientific program of the 2024 edition of the BND School is shown in this page. The aim is to have a total of 28 lectures/exercises (~3 per day), where the Saturday afternoon and Sunday are free. Additionally the students will work on a project in small teams throughout the school (1 slot per day).

The typical day structure is:
09:00 - 10:30: Lecture / Project
Coffee Break
11:00 - 12:30: Lecture / Project
Lunch Break
14:00 - 15:30: Lecture / Project
Coffee Break
16:00 - 17:30: Lecture / Project

The topics which will be discussed during the school are listed below. For all topics 4 lectures including exercises can be expected. For details on the timetable please refer to the item "Timetable" in the Indico page menu.

Lecture content (TBC)
QCD and Monte Carlo event generators (Prof. Melissa van Beekveld)
Fixed Order QCD calculations (Prof. Ben Page)
Theory motivation for future particle colliders, including HL-LHC (Dr. Matthew McCullough)
Accelerator Physics and Challenges for Future Colliders (Dr. Daniel Schulte)
Neutrino Physics (Prof. Albert de Roeck / Prof. Joachim Kopp)
AI for HEP (Ramon Winterhalder / Anja Butter)
Dark Matter Theory & Experiment (Laura Lopez Honorez / Michael Tytgat)
Modelling and data analysis in GW science (Elena Cuoco / John Veitch)

Students projects (TBC)
Measurement of muon lifetime
Track reconstruction
Luminosity
Search for new physics with future collider concepts