

List of Topics: European PhD School 2025, 26-30 May 2025 in Gaeta, Italy

- Lecture L4 (28.05.): Modular Multilevel Converters and Applications
 - Marcelo L. Heldwein, TU Munich
 - Thomas Brückner, UniBW Munich
- Lecture (double): HIL Real-Time Simulation of Modern Power Electronics: Challenges, Modelling Approaches, and System Architectures
 - Caio Osorio, Typhoon HIL
 - Fei Gao, UTBM
- Keynote K4 (28.05.): High Voltage DC Power Transmission (HVDC)
Max Beuermann, Siemens Energy
- Keynote: Power Electronics for Particle Accelerators
Fulvio Boattini, CERN (CH)
- Lecture: Solid State Transformer - Theory and Applications
Richard Zhang, Virginia Tech (US)
- Keynote: Aircraft Electrification w. Cryogenic Power Electronics
Bernd Eckardt, Fraunhofer IISB
- Lecture (double): Sustainability/Life Cycle Assessment (LCA)
 - LCA in Power Electronics: Jonas Huber, ETH Zurich
 - LCA for batteries (2nd life): NN (enquired)
- Keynote (K1/K2): AI for the Optimisation of Power Electronics
Alessandro Cremonesi, STMicroelectronics
- Lecture (double): WBG/SiC for Power Electronics
 - Francesco Gennaro/Natale Aiello, STMicroelectronics
 - Mario Cacciato, University of Catania (enquired)
- Keynote (double): High Power SiC Converters
Fabio Carastro, Semikron Danfoss
- Lecture L2 (27.05.): Fractional KVA rating PWM converter doubly fed variable speed electric generator systems design and control (overview w. case studies) and overview on MAGLEVs
Ion Boldea (TU Timisoara, ret.)
- Lecture (double): Energy Storage Systems and Applications
 - Fundamentals: Minglong He, ABB
 - System and Application Aspects: Daniel Chartouni, ABB
- Lecture: High-Efficiency and High-Power Density Converters incl.
fundamental of topologies and magnetics, magnetic integration for high density converters
 - LLC converters design examples w. planar magnetics, inductive power transferZiwei Ouyang, DTU Lyngby