Prof. Dr. Torben FERBER (he/him/his)

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Short biography (last updated 08/2022)

Ferber did his PhD work on the OPERA neutrino oscillation experiment (Italy) at the University of Hamburg (supervisors Prof. Schmidt-Parzefall/Prof. Caren Hagner). He moved to a postdoctoral position at DESY (with Carsten Niebuhr) working on the Belle and Belle II experiments (Japan). Ferber continued to work on Belle II at his second postdoctoral position at the University of British Columbia in Canada (with Prof. Chris Hearty). In 2018 he become the leader of a Helmholtz Young Investigators group at DESY and the University of Hamburg. Since August 2021 Ferber is full professor for experimental particle physics at KIT.

Ferber was the physics performance coordinator of the Belle II experiment. He has served as electromagnetic calorimeter reconstruction and event generator convenor, and has lead the “Dark Sector” working at Belle II for many years. Ferber is the Belle II representative and a core member of the the CERN “Physics Beyond Colliders” working group.

His group focusses on the development of new methods of calorimeter reconstruction, including ultra-fast real-time algorithms. Ferber’s group works on searches for light Dark Matter, Long-Lived Particles (LLPs), Axion-Like Particles (ALPs) and flavour physics. He is member of the Belle II and the LUXE collaborations. Ferber is also active in various theory projects to improve our understanding of light Dark Matter and BSM searches at colliders and future facilities.