

Foreword: Welcome to the HB2021 Workshop Proceedings

The 64th ICFA Advanced Beam Dynamics Workshop on High Intensity and High Brightness Hadron Beams was hosted by Fermilab from October 4 to October 9, 2021. Known in the community as an ICFA HB workshop, this series is the premier international event, focused on the latest developments and insights into the physics of high-intensity hadron beams. The HB series originated at Fermilab in 2002 (AIP Conf. Proc. 642 (2002)) as the 20th ICFA Advanced Beam Dynamics Workshop and we are very proud to continue its traditions of high-quality contributions and scholarly discussions. HB2021 provided a platform to present and discuss new projects, concepts, and physics ideas into high-power, high-brightness, and high-intensity beams, as well as updates, progress, and new developments in existing hadron accelerators and beam physics. The workshop scientific program was planned by the HB International Organizing Committee (IOC), chaired by Prof. Ingo Hofmann.

Because of the COVID-19 pandemic restrictions, the workshop was organized as a virtual event. Unfortunately, multiple time zones were not conducive to day-long workshop sessions. The program therefore included shorter invited talks both in plenary and in parallel sessions of 5 Working Groups: (1) Beam Dynamics in Rings, (2) Beam Dynamics in Linacs, (3) Accelerator Systems, (4) Commissioning and Operations, and (5) Beam Instrumentation and Beam Interaction. The workshop had 175 registered participants.

During the IOC meeting at HB2021, the next HB workshop (HB2023) was decided to be held at CERN (Switzerland). It follows the tradition of the HB workshop biennial cycle rotating between the three regions -- Europe, Asia, and North America.

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