

Overview of the Installation & Alignment of HEPS SR

Thursday 10 October 2024 11:11 (4 minutes)

The High Energy Photon Source (HEPS) has been under construction since 2019. It is designed to be the first high-energy diffraction-limited synchrotron light source in China. To achieve an ultra-low emittance of less than 60pm.rad, substantial efforts have been invested in the alignment process of the SR. This involves thousands of elements being arranged in a very tight space. To fulfill such a heavy task, not only the accuracy, but also the efficiency has been taken into account. A mockup experiment has been performed firstly to verify the installation process and resolve the emerging and potential issues, paving the way of the mass installation. The progress of the accelerator commissioning indicates the satisfactory achievement of the alignment work.

Author: LI, Chunhua (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS))

Co-authors: YUANYING, Han (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); DONG, Lan (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); MINXIAN, Li (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); XIAOYANG, Liu (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); LU, Shang (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); YANG, Shu (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); CHEN, Siyu (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); HAIJING, Wang (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); LEI, Wu (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); WU, Yafeng (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); LUPING, Yan (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); SHU, Yang (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); XU, Yuandi (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); NINGCHUANG, Zhou (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS)); WANG, Zihao (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS))

Presenter: WANG, Zihao (Institute of High Energy Physics, Chinese Academy of Sciences (IHEP CAS))

Session Classification: Poster session and Coffee @ B053