CONSTRUCTION, COMMISSIONING and OPERATION OF BEPCII
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Abstract

BEPCII is the major upgrade of BEPC (Beijing Electron-Positron Collider). It is a double ring e^+e^- collider as well as a synchrotron radiation (SR) source, which consisted of the two outer half rings. As a collider, BEPCII operates in the beam energy region of 1-2.1 GeV with design luminosity of 1×10^{33} cm^{-2}s^{-1} at 1.89 GeV. As a light source, the SR ring operates at 2.5 GeV and 250 mA. Construction of the project started in the beginning of 2004. Installation of the storage ring components completed in October 2007. The BESIII detector was moved to the Interaction Region (IR) on May 6, 2008. In accordance to the progress of construction, the beam commissioning of BEPCII is carried out in 3 phase. The luminosity reached 3.3×10^{32} cm^{-2}s^{-1} at 1.89 GeV in 2009 and the project passed the state accelpence test. Since then, the collider has been put in operation for both high energy physics experiment and synchrotron radiation application. The luminosity has increased aeadily to 7.1×10^{32} cm^{-2}s^{-1}. This paper summarizes the progress on the construction, commissioning and operation of BEPCII.