

# Hadron physics with LEPS at SPring-8

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At the Laser Electron Photon facility at SPring-8 (LEPS), a highly polarized photon beam is used to study hadron physics. SPring-8 is an 8-GeV electron storage ring designed as a synchrotron radiation photon source. We are injecting a ultraviolet laser beam into the ring and obtaining a polarized photon beam in the GeV energy region by the Compton scattering between the laser photon and the circulating electron. To investigate the nonperturbative aspects of QCD, we have been measuring various meson/baryon photoproduction reactions, including searching for the exotics such as  $\Theta^+$  pentaquark. We have started the LEPS experiment with a charged-particle spectrometer which covers the forward angles. We recently extended our kinematical coverage with a upgraded laser system and a large-angle TPC detector. In this talk, several recent results from the LEPS experiment are reviewed and our new project, LEPS2, is introduced. The LEPS2 is a new beamline at SPring-8 which produces a photon beam with much higher intensity and with larger detector to carry out a comprehensive measurement of the hadron photoreaction in a few-GeV energy region.

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