Recent results of LEPS at SPring-8

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The Spring-8 facility is the most powerful third-generation synchrotron radiation facility with 62 beamlines. We recently built a polarized GeV photon beam facility at a beamline, BL33LEP. Polarized laser photons are injected toward the 8-GeV electrons in the storage ring where Backward-Compton scattering of the laser photons takes place. The maximum energy of the scattered photon (Laser-Electron Photon; LEP) is 2.4 GeV.

If laser lights are 100 % polarized, a LEP photon is highly polarized at the maximum energy. Since an energy of laser photons is easily changed, we can maintain high polarization of LEP in the energy region of interest.

We report the status and future upgrade plan of the new facility. The highlights of results from the first physics run are presented.