

Abstract Submitted
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$\Lambda(1405)$ **photoproduction at SPring8/LEPS** HISAKO FUJIMURA, MASAYUKI NIYAMA, Department of Physics, Kyoto University, THE LEPS GROUP COLLABORATION — The structure of $\Lambda(1405)$ is a long standing question in hadron physics whether $\Lambda(1405)$ is the spin-multiplet partner of $J^P = \frac{3}{2}^-$ $\Lambda(1520)$ or a Meson-Baryon resonance. Recent theoretical works based on chiral dynamics predict its lineshape to be different in the $\Sigma^+\pi^-$ and $\Sigma^-\pi^+$ channels due to interference of I=0 and I=1 amplitudes. The same model predicts the modification of mass spectrum of $\Lambda(1405)$ in nuclear medium. The hyperon photoproduction experiment were performed at SPring-8/LEPS with polyethylene, carbon and copper targets. The energy range of the backward Compton scattering photon was 1.5 - 2.4 GeV. In this talk, I will report the experimental details and status of the analysis of $\Lambda(1405)$ lineshape from proton and carbon.

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