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Measurement of the LHCb Pentaquark double polarization and photo-production coupling in Hall A at Jefferson Lab CRISTIANO FANELLI, Laboratory for Nuclear Science, Massachusetts Institute of Technology, Cambridge, MA, LUBOMIR PENTCHEV, BOGDAN WOJTSEKHOWSKI, Thomas Jefferson National Accelerator Facility, Newport News, VA — We investigate the possibility to measure the helicity correlation asymmetry K_{LL} in J/ψ photo-production using circularly polarized photons from a proton target with detection of the recoil proton polarization. This experiment can offer a very high sensitivity to the LHCb pentaquark state decaying into J/Ψ p in the s-channel exclusive production process due to first order effect of the resonance in the polarization observables. This measurement can take advantage of the high luminosity of the Super Bigbite setup developed for GEp/SBS experiment in Hall A combined to the large figure of merit related to the polarimetry technique. Preliminary results of this feasibility study will be shown and the analysis strategy outlined. The possible achievable physics goals will be also addressed.

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