

Abstract Submitted
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A Measurement of the Electron Compton Scattering Cross Section in the Jefferson Lab PrimEx Experiment YELENA PROK, PRIMEX COLLABORATION — The PrimEx experiment at Jefferson Lab has been designed to perform a high precision ($\sim 1.5\%$) measurement of the neutral pion lifetime using the small angle coherent photoproduction of π^0 s in the Coulomb field of a nucleus, i.e., the Primakoff effect. This measurement is a rigorous test of axial anomaly, which is a fundamental prediction of low energy QCD. In view of the required precision for this experiment, periodic measurements of the well known cross section in Compton scattering off atomic electrons were performed. The data were collected in Hall B of Jefferson Lab, using a high resolution hybrid calorimeter (HyCal), photon tagger, and carbon and beryllium targets. Analysis techniques and preliminary results will be presented in this talk.

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