

Abstract Submitted
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The Neutral Pion Radiative Decay Width Precision Measurement at Jefferson Lab¹ ILYA LARIN, Univ of Mass - Amherst — The properties of π^0 decay are especially sensitive to the fundamental symmetries of quantum chromodynamics (QCD). In particular, the neutral pion decay width is primarily defined by the spontaneous chiral symmetry breaking effect (chiral anomaly) in QCD. The PrimEx experiments in Hall B at Jefferson lab were aimed to perform a precision measurement of the $\pi^0 \rightarrow \gamma\gamma$ decay width via Primakoff effect. The result from the first (PrimEx I) experiment has 2.8% accuracy. The second (PrimEx II) experiment with several times more statistics than the PrimEx I and an improved systematics was aimed to achieve a better than 2.0% precision. An updated PrimEx II result will be presented.

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