A Precision Measurement of the Neutral Pion Lifetime: the PRIMEX Experiment

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Low energy QCD can predict electromagnetic transitions between even and odd numbers of pseudo-scalar mesons without free parameters. This remarkable result is unique in hadron physics, where reactions are generally parameterized by form factors or low energy constants. The PRIMEX collaboration at Jefferson Lab is completing an experimental analysis to obtain a precision measurement of the neutral pion lifetime. Results from the experiment will be presented and comparisons made with the chiral anomaly prediction and NLO calculations. An extension of the experiment to 12 GeV for measurements of the eta and eta' radiative widths will be briefly discussed.