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Jefferson Lab HRS Optimization Measurement for the PRex-II Experiment SIYU JIAN, NILANGA LIYANAGE, Univ of Virginia, JEFFERSON LAB PREX COLLABORATION COLLABORATION — The RMS radius of the neutron distribution in a heavy nucleus R_N provides an important test of nuclear theory. Furthermore R_N is used in the determination of the density dependence of symmetry energy of neutron rich matter; this dependence is an important input in neutron star structure, heavy iron collision and atomic parity violation experiment calculations. The PRex-II experiment was performed from June to September 2019 to measure R_N for the ^{208}Pb nucleus using the parity violating weak neutral interaction. This experiment was done in Jefferson lab experimental hall A using the High Resolution Spectrometer (HRS) pair. This talk with present the preliminary results from HRS Optics calibration measurements for the PREX-II and will discuss the implication of these calibration results on the systematic error in R_N.

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