## Abstract Submitted for the MAR07 Meeting of The American Physical Society

Local Structure of the Multiferroic System  $RMn_2O_5^{-1}$  T. A. TYSON, M. DELEON, Q. QIAN, NJIT, A. IGNATOV, CAMD, LSU, S. PARK, S.-W. CHEONG, Rutgers U. — In order to understand the origin of the coupled magnetic and ferroelectric properties observed in  $RMn_2O_5$  temperature and magnetic field dependent local structure measurements have been performed. The local structure about the rare earth (R) and the Mn sites have been examined. The atomic correlations involved in the spin-lattice coupling are identified.

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