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On the noncollinear magnetic structure of UO2 RAQUEL LIZÁRRAGA, Los Alamos National Laboratory, MASSIMILIANO COLARIETI-TOSTI, Linköping University, OLLE ERIKSSON, Uppsala University, LARS NORDSTRÖM , Uppsala University, JOHN WILLS, Los Alamos National Laboratory — Recent neutron diffraction measurements on UO_2 under high magnetic field predicts a triple-**k** structure associated with a triple-**k** distortion of the oxygen sublattice. We have performed first principles calculations on the magnetic structure of UO_2 using the full potential augmented plane wave with local orbitals at ambient conditions. We have investigated two transversal and a longitudinal triple-**k** structures with the experimentally suggested triple-**k** oxygen distortion.

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