

Abstract Submitted  
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**Magnetic field dependence of spin fluctuations in superconducting FeSe<sub>0.4</sub>Te<sub>0.6</sub>**<sup>1</sup> V. THAMPY, Institute of Quantum Matter, Dept. of Physics, Johns Hopkins Univ, Y. ZHAO, NIST Center for Neutron Research, W. BAO, Dept. of Physics, Renmin Univ. of China, Z. MAO, Dept. of Physics, Tulane Univ., J. RODRIGUEZ, NIST Center for Neutron Research, D. ARGYRIOU, Helmholtz-Zentrum Berlin für Materialien und Energy, Germany, A. SAVICI, G. GRANROTH, Oak Ridge National Lab, A. HIESS, Institut Max von Laue-Paul Langevin, France, C. BROHOLM, Institute of Quantum Matter, Dept. of Physics, Johns Hopkins Univ — Spin fluctuations may play a key role in metals where superconductivity appears as a magnetic phase is suppressed under pressure or with chemical substitution. The suppressed magnetism is manifested as a gap in the spin fluctuation spectrum and a spin resonance to which the spectral weight is shifted. We have studied the effect of high magnetic fields on this resonance. While fine structure is observed, these features do not shift with field and persist in zero field and in the normal state. Temperature difference spectra are however, significantly broadened in high fields.

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