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Dispersion of Spin Resonance mode in Yb Doped CeCoIn5 YU SONG, Rice University, MENGSHU LIU, University of Tennessee, BENJAMIN WHITE, BRIAN MAPLE, University of California San Diego, PENGCHENG DAI, Rice University — It is commonly believed superconductivity in CeCoIn5 has a d wave symmetry, given such symmetry the spin exciton interpretation of the spin resonance which has been widely applied to many systems where such a mode is observed, predicts a downward dispersion of the resonance mode (PRL 101, 187001 (2008)). Here we discuss our neutron scattering results on Yb doped CeCoIn5, our results can clearly differentiate whether the resonance mode is indeed a spin exciton or if it's a magnon-like exciton as argued in another work (PRL 101, 087001 (2008)).

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