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**Spectral information in the fluctuation induced superconducting state for iron based superconductors**[1] JUNHUA ZHANG, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, RASTKO SKNEPNEK , Department of Material Science and Engineering, Northwestern University, JOERG SCHMALIAN, Ames Laboratory and Department of Physics and Astronomy, Iowa State University — Magnetic fluctuations in iron based superconductors have been considered as a plausible mediating glue that is responsible for pair formation. Based on a multiorbital model, we analyze the spectral function and the spin excitation spectrum in the superconducting state induced by spin fluctuation. We show the feature in the spectral function that is related to the electron collective-mode coupling observed in ARPES measurement and the spin resonance mode observed in inelastic neutron scattering measurement. We also show how the dispersion of the spin resonance mode can distinguish between s+- and d-wave paring symmetries.

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