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Collective excitations of the pairing states in multi-component dipolar Fermi gases YI LI, CONGJUN WU, Department of Physics, University of California, San Diego, CA 92093 — The multi-component ultra-cold dipolar Fermi gases exhibit competing singlet and triplet Cooper pairings. We investigate collective excitations in such states, including the gapless phonon and spin-wave Goldstone modes with anisotropic dispersions due to the anisotropic nature of the dipolar interaction. An excitonic mode in the p-wave triplet channel is predicted as a low energy resonance mode between the singlet and triplet pairing states.

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