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Quantum Degeneracy in a Strongly Mass-Imbalanced Fermi-Bose Mixture KRUTIK PATEL, B.J. DESALVO, GEYUE CAI, CHENG CHIN, James Franck Institute, Enrico Fermi Institute, Department of Physics, University of Chicago — We report the realization of a stable Bose-Einstein condensate of Cs overlapped with a degenerate Fermi gas of Li in an optical dipole trap. Such a system provides a platform to study Fermi-Bose quantum mixtures in the ground state with widely tunable interspecies interactions. In our first work, we observe Fermions trapped in the Bose condensates with attractive interspecies interactions. More recently, we study collective excitations of the condensate immersed in the Fermi gas.

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