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**Double-degenerate Bose-Fermi mixture of strontium**

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We report on the attainment of a double-degenerate Bose-Fermi mixture of strontium. A sample of fermionic  $^{87}\text{Sr}$  atoms is spin-polarized and sympathetically cooled by interisotope collisions with the bosonic isotope  $^{84}\text{Sr}$ . A degeneracy with  $T/T_F = 0.30(5)$  is reached for a  $^{87}\text{Sr}$  Fermi sea of  $2 \times 10^4$  atoms together with an almost pure  $^{84}\text{Sr}$  BEC of  $10^5$  atoms. The rich electronic structure and the large nuclear spin of  $^{87}\text{Sr}$  make it a promising candidate for quantum simulation of  $\text{SU}(N)$  magnetism and quantum information processing.