

Abstract Submitted
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Testing Universality of Efimov Physics in an Ultracold Mixture of Lithium and Cesium Atoms JACOB JOHANSEN, BRIAN DESALVO, CHENG CHIN, James Franck Institute, Enrico Fermi Institute and Physics Department, University of Chicago — We conduct a survey of Li-Cs-Cs Efimov resonances in a ${}^6\text{Li}$ - ${}^{133}\text{Cs}$ mixture in the magnetic field range of 800 to 950 G. In this region, limiting our study to the two lowest Zeeman levels of lithium and the lowest Zeeman level of cesium, there are five Feshbach resonances which may be probed. The Cs-Cs scattering length at these resonances varies from $-3600 a_0$ to $+1000 a_0$, allowing us to study the impact of the Cs-Cs scattering length on the Efimov resonance positions. In addition, a combination of broad and narrow Feshbach resonances in this magnetic field range allows us to probe the influence of molecular physics on the Efimov effect, particularly the variation of the three-body parameter.

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