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### **Universality of the Three-Body Parameter for Efimov States in Ultracold Cesium<sup>1</sup>**

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We review recent progress in our understanding of universal few-body physics, considering the particular example of ultracold cesium gases with widely tunable s-wave interactions. We discuss the question of the so-called three-body parameter, which together with Efimov's famous scaling law fixes the values of the scattering length where three-body recombination resonances occur. A collection of experimental results on Cs and other species and recent theoretical results show a new type of universality for atomic systems, which connects the three-body parameter to the length scale introduced by the van der Waals interaction. Further progress has also been made regarding the generalization of Efimov's scenario to universal few-body cluster states. We report on the first observation of a five-body recombination resonance, which strongly supports the theoretical predictions on the existence of a universal series of N-body states. Moreover, we present new experimental results on modifications of Efimov physics in the dimensional crossover when the 3D confinement is changed into a 2D one.

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