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Efimov physics: what we can learn from cesium atoms

RUDOLF GRIMM, Inst. of Experimental Physics, Univ. Innsbruck, and IQOQI, Austrian Acad. of Sciences

Cesium is the first species that has revealed signatures of Efimov states and related few-body phenomena. I will first give an overview of the previous observations in this system for purely atomic samples, atom-dimer mixtures, and pure dimer samples, and discuss how all these observations fit together in the Efimov scenario with extensions to four-body systems. I will discuss open question on the interpretation of the results. I will then present our current experiments, which are dedicated to a comparison of Efimov features on different (broad) Feshbach resonances in the same atomic state and to the search for resonant dimer-dimer interactions. Work performed in collaboration with: M. Berninger, F. Ferlaino, W. Harm, J. P. D'Incao, S. Knoop, H.-C. Nägerl, A. Zenesini.