

Efimov physics from cold atoms to nuclei

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A separation of scales in a physical system leads to universal properties independent of the details of the interaction at short distances. Particularly interesting are systems with a large scattering length which can display Efimov physics [1,2]. The universal properties then include a geometric spectrum of three- and higher-body bound states and log-periodic dependence of few-body observables on the physical parameters. Such systems can be realized in experiments with ultracold atoms close to a Feshbach resonance, but systems close to the universal limit also occur in nuclear and particle physics [3]. I will give an overview of Efimov physics and discuss recent progress in this area.

[1] V. Efimov, Phys. Lett. **33B**, 563 (1970).

[2] E. Braaten and H.-W. Hammer, Phys. Rep. **428**, 259 (2006).

[3] H.-W. Hammer and L. Platter, Ann. Rev. Nucl. Part. Sci. **60**, 207 (2010).

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