

## **GIANT QUANTUM FEW-BODY SYSTEMS**

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Quantum mechanics predicts the existence of giant few-body systems, many times larger than the characteristic range of the interparticle forces. The systems can be nuclear or atomic – quantum mechanics says the mechanism responsible for the existence of such systems is universal. A striking feature of the prediction is that if one such giant is observed, many more should exist, with all of them essentially being copies of one another zoomed in or out by a scaling factor of 22.7.

The first experimental evidence for the few-body giants was obtained in 2006 in an experiment with an ultracold gas of cesium atoms. Since then the hunt for the giants has become a hot topic of experimental few-body physics. I will review the theoretical background and recent experimental advances, including the experimental confirmation of the 22.7 scaling factor.