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The Coolest Spot in the Universe: A Facility for Cold Atom Experiments Aboard the ISS.¹

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Microgravity offers a wealth of advantages for studies of ultra-cold atomic gases and their applications. These include the ability to achieve exceptionally low temperatures via expansion into very weak traps, which don't need to be supported against gravity and the ability to achieve very long interaction times with samples that have been released from traps. In this talk, I present early results from the Cold Atom Laboratory (CAL) a multi-user ultra-cold atom facility that will enable the precise study of quantum gases in a regime that is inaccessible on Earth.

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