



# CU Physics Department Colloquium

Monday, September 21, 2009 4:10 PM 428 Pupin Hall

## **DISCRETE SCALE INVARIANCE IN ULTRACOLD ATOMS**

In 1970, a Russian physicist named Efimov predicted that a 3-body system consisting of identical bosons with strong short-ranged interactions would display remarkable universal properties at sufficiently low energy. These universal properties are characterized by a discrete scaling symmetry: invariance under changing lengths by any integer power of 22.7. Thirty-five years went by without any experimental evidence for this phenomenon. However recent experiments with trapped atoms cooled to ultralow temperatures are finally beginning to provide evidence for Efimov physics.

**Eric Braaten, Ohio State University**

**Meet the Speaker at 1:30 pm in 705 Pupin Hall**

Hosted by Miklos Gyulassy

