

Abstract Submitted
for the DAMOP09 Meeting of
The American Physical Society

A possible Efimov trimer in 3-component lithium 6 PASCAL NAIDON, JST, MASAHITO UEDA, JST, University of Tokyo — We consider the Efimov trimer theory as a possible framework to explain recently observed losses by inelastic three-body collisions in a three-hyperfine-component ultracold mixture of lithium 6. Our results show that such a trimer state is indeed possible given the two-body scattering lengths in the three-component lithium mixture, and gives rise to two zero-energy resonances. The locations of these resonances appear to be consistent with observed losses. This would be the first observation of an Efimov trimer of distinguishable fermions.

Pascal Naidon
JST

Date submitted: 23 Jan 2009

Electronic form version 1.4