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Abstract for an Invited Paper for the APR16 Meeting of the American Physical Society

Nuclear binding near a quantum phase transition

DEAN LEE, North Carolina State University

I review recent ab initio results by the Nuclear Lattice Effective Field Theory Collaboration showing that nature lies close to a quantum phase transition between an alpha-particle gas and nuclear liquid. I discuss the control parameter of this transition and the implications for clustering in nuclei and improving ab initio nuclear structure calculations.