

Abstract for GR-TR Conference on Statistical Mechanics
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We discuss evidence for the existence of new type of semitopological ring-like localized field configurations whose stability is due to both topological and nontopological charges. They are local minima of the energy in scalar field theories with an unbroken $U(1)$ global symmetry. We obtain numerical solutions of the field configuration corresponding to large rings and derive virial theorems demonstrating their stability.