Topological Kondo Insulators[1] MAXIM DZERO, KAI SUN, VICTOR GALITSKI, University of Maryland, PIERS COLEMAN, Rutgers University — We explore the possibility for the Ce-based topological Kondo insulators. Kondo insulators are specific type of materials where Kondo lattice effect andleads to a formation of a band insulator. We describe the insulating phase within the large-N mean field approximation for the Kondo lattice model and classify the possible topological insulating states with respect to the symmetry of the lowest lying Kramers doublet of the cerium ion. We discuss possible experimental implications of our theory for the Ce-based Kondo insulators CeNiSn and CeRhSb.

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