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Crystalline Topological Insulators and Superconductors – The Role of Nonsymmorphic Symmetries DANIEL VARJAS, FERNANDO DE JUAN, YUAN-MING LU, Univ of California - Berkeley — We investigate how the presence of nonsymmorphic lattice symmetries affects the classification of topological insulators and superconductors in 2 and 3 dimensions. We use the representation theory of space groups, the classification of 1D fermionic symmetry protected topological phases and analyze tight binding models that exhibit gapless surface modes protected by unitary or antiunitary space group symmetries.

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