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Stroboscopic Symmetry-Protected Topological Phases LUIZ SANTOS, UIUC, THOMAS IADECOLA, CLAUDIO CHAMON, Boston University — Symmetry-protected topological (SPT) phases of matter have been the focus of many recent theoretical investigations, but controlled mechanisms for engineering them have so far been elusive. In this talk, I demonstrate that by driving interacting spin systems periodically in time and tuning the available parameters, one can realize lattice models for bosonic SPT phases in the limit where the driving frequency is large. We provide concrete examples of this construction in one and two dimensions, and discuss signatures of these phases in stroboscopic measurements of local observables. Phys. Rev. B 92, 125107 (2015); arXiv:1503.07871

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