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**Spin-orbit coupling and supersolidity in optical superlattices**

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We use orbital levels in a double-well potential as pseudospin states. Two-photon Raman transitions between left and right wells induce spin-orbit coupling. This scheme does not require near resonant light, features adjustable interactions by shaping the double-well potential, and does not depend on special properties of the atoms. A Bose-Einstein condensate of sodium atoms with such spin-orbit coupling shows a supersolid phase featuring a density modulation (stripe phase) which has been detected via Bragg scattering. Reference: J. Li, J. Lee, W. Huang, S. Burchesky, B. Shteynas, F.C. Top, A.O. Jamison, and W. Ketterle, Observation of the supersolid stripe phase in spin-orbit coupled Bose-Einstein condensates, *Nature* 543, 91 (2017)