

Abstract Submitted
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Spin-orbit coupled p-orbital bands¹ YAN-QI WANG, International Center for Quantum Materials, School of Physics, Peking University, Beijing 100871, China — We investigate novel phases for a 2D spin-orbit coupled bosonic p-orbital system based on recent experiments. The orbital degree of freedom and spin-orbit coupling are shown to compete and bring about novel phases in the presence of interactions. We develop a self-consistent method for bosons to solve the phase diagram, with the interesting topological features being discussed.

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