

Abstract Submitted
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Mott phases and superfluid-insulator transition of spin-3 bosonic atoms in an optical lattice JEAN-SEBASTIEN BERNIER, University of Toronto, KRISHNENDU SENGUPTA, Saha Institute of Nuclear Physics, YONG BAEK KIM, University of Toronto — We present a theoretical study of the Mott phases and superfluid-insulator transition of spin-3 bosonic atoms with dipolar interactions in an optical lattice. We present the various broken symmetry states obtained and discuss the application of our results to Chromium atoms in optical traps.

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