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Sign-Reversing Orbital Polarization in FeSe Driven by the Nematic Symmetry Breaking Self-Energy SEIICHIRO ONARI, Okayama University, YOUICHI YAMAKAWA, HIROSHI KONTANI, Nagoya University — Novel $\boldsymbol{k}$-dependence of the orbital polarization in the orthorhombic phase in FeSe has been observed by the ARPES measurement [1], where the sign-reversal of the orbital splitting appears between hole pockets and electron pockets. We analyze the multiorbital Hubbard models in the orbital-ordered state by extending the orbital-spin fluctuation theory [2]. The present theory describes the spontaneous symmetry breaking with respect to the orbital polarization and spin susceptibility self-consistently. In the orbital-ordered state, we obtain the two Dirac cone Fermi pockets in addition to the sign-reversing orbital polarization, consistently with experiments. The orbital-order originates from the strong orbital-spin interplay due to the Aslamazov-Larkin processes. [1] Y. Suzuki *et al.*, arXiv:1504.00980. [2] S. Onari, Y. Yamakawa, and H. Kontani, arXiv:1509.01172.

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