Fermi surfaces and band dispersions in 4d compound Sr$_2$RhO$_4$

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— Fermi surface (FS) topology and band dispersions in 4d compound Sr$_2$RhO$_4$ are studied by angle-resolved photoemission spectroscopy (ARPES) and compared with the band structure calculation within the local-density approximation (LDA). The measured FS deviates significantly from the calculation, suggesting the electronic correlation effects are not negligible in this system. Core-level X-ray photoemission spectrum of Rh 3$d$ shows correlation-induced satellite, from which we estimate the strength of the correlation, by simulating the spectrum with the recently proposed model calculation of core-level spectra incorporating the dynamical mean-field theory (DMFT).