**Electronic Structure of Selected Strongly Correlated Electron Systems**

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In strongly correlated electron (SCE) systems, where the electron-electron interactions are crucial, new physical phenomena including heavy-fermion, quantum critical points, non-Fermi liquid behaviour, unconventional superconductivity, and so on, are often observed. In order to bring insight into new problems in these materials, in addition to technologically sophisticated experiments, the band structure calculations are highly desired. The advantage of the theoretical studies is that not only may help in understanding how the matter behaves, but may predict some physical properties without reference to expensive experiments. For the condidered systems, the most successful methods of the electronic structure calculations are those based on Density Functional Theory. In this talk, we give a brieft overview on the electronic band structures (EBS) of selected SCE compounds, which have recently investigated by the author and co-workers, namely, superconducting Mo3Sb7 [1,2] and ThPt4Ge12 [3] ferromagnetic U2ScB6C3 [4] and URhGe [5], and ferrimagnetic Kondo lattices Ce5CuPb3 [6] and Ce5CuBi3 [7]. The EBS have been obtained with the full-potential linearized-augmented-plane-wave and full-potential local-orbital methods, using the WIEN2k [8] and FPLO [9] packages, respectively.

**Reference**

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