



Friday, June 22nd 2018 - 11:00
CFEL Seminar room I, II (Bldg. 99)

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Superconductivity in single- and multi-band Hubbard models: can we optimise them?

Abstract: We can capture various unconventional high- T_c superconductors basically either with single-band models or multi-band ones. We can theoretically explore how we can optimise them for higher T_c 's. There, "multiband" should not be confused with "multiorbital" systems, for which I shall compare merits and demerits of the two classes from both quantum many-body algorithms and materials-science points of view. For the former, I shall mention the dynamical vertex approximation to fathom the correlation between the electronic structure and the superconductivity and to search for enhanced T_c 's. For the latter, I shall present various ideas that include "flat-band" superconductivity.

