The metal insulator transition in correlated quasi-one-dimensional organic conductors[1] CLAUDE BOURBONNAIS, ABDELOUA-HAB SEDEKI, Departement de Physique, Universite de Sherbrooke, Sherbrooke (QC), Canada J1K-2R1 — We use a two-loop functional renormalization group approach to calculate the quasi- particle weight along the Fermi surface in the framework of the quasi-one- dimensional electron gas model which includes weak Umklapp scattering at half- filling. The location and evolution of cold and hot spots for electron-electron scattering is described and the Fermi surface reconstruction is clarified as a function of the amplitude of Umklapp scattering. The results are applied to the Mott transition in the Fabre salts series $(TMTTF)_2X$ where the emergence of a Fermi surface is found as a consequence of electronic deconfinement under the application of hydrostatic pressure.

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