

Composite Fermions: The Magical Beauty of Emergence

Wpisany przez Jacek Szczytko

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The fractional quantum Hall effect is one of the most amazing collective states observed in nature. I will describe how the emergence of new particles called composite fermions explains this effect by unifying it with the well understood integer quantum Hall effect, while at the same time revealing a treasure trove of new phenomena. I will also report on recent works that rely on the quantitative accuracy of the composite fermion theory to resolve certain longstanding mysteries. The talk will be pedagogical and should, for most part, be understandable to a first year graduate student.

Szkoła odbywa się dzięki wsparciu projektu POKL UDA – POKL.04.01.01-00-100/10 "Chemia, fizyka i biologia na potrzeby społeczeństwa XXI wieku: nowe makrokierunki studiów I, II i III stopnia" prowadzonemu na Wydziale Chemii UW.