Spin-charge Separation in Aharonov-Bohm Rings of Interacting Electrons

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We investigate the properties of strongly correlated electronic models on a flux-threaded ring connected to semi-infinite free-electron leads. The interference pattern of such an Aharonov-Bohm ring shows sharp dips at certain flux values, determined by the filling, which are a consequence of spin-charge separation in a nanoscopic system.

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