Towards realistic physics at large quantum number



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New perspective in fermionic CFTs at large charge

Tuesday, 14 May 2024 13:30 (1 hour)

I will present some results concerning large-charge sectors of 3d CFTs with fermionic degrees of freedom. I will focus on theories that are weakly coupled at large-N, allowing for analytic determination of finite-density ground states. Other than superfluid ground states, certain large-charge sectors are described by filled Fermi Sphere ground states, whose stability beyond the large-N expansion is still an open problem. If time allows it, I will present a few recent ideas on matrix-model effective theories for monopole operators in fermionic (gauge) theories.

Presenter: DONDI, Nicola