

The large charge sector of 3d parity-violating CFTs

Friday, 3 September 2021 17:30 (30 minutes)

For CFTs that become superfluids at finite density, we show that there exists a single one-derivative term in the Goldstone EFT that has a quantized coefficient. This term requires the ground state on a sphere to have vortices, and results in a spectrum of operators that is remarkably different from CFTs that are parity invariant. We will show how the properties predicted by the Goldstone EFT are realized in the spectrum of monopole operators in a weakly coupled Chern-Simons matter theory. Based on arxiv:2102.05046 with Luca Delacretaz and Gabriel Cuomo.

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