

Computation of the entanglement entropy in the EMD theory via the Ryu-Takayanagi formula for $\theta = d - 1$ yields

$$\mathcal{S}_E = \mathcal{C}_E \mathcal{Q}^{(d-1)/d} P \ln P$$

where \mathcal{C}_E is independent of UV details.

This is precisely as expected for a Fermi surface, when combined with the Luttinger theorem!