

Logarithmic violation of “area law”: $S_E = \frac{1}{12} (k_F P) \ln(k_F P)$

for a circular Fermi surface with Fermi momentum k_F ,
where P is the perimeter of region A with an arbitrary smooth shape.
The prefactor $1/12$ is *universal*: it is independent of the shape of the
entangling region, and of the strength of the interactions.