

SYK model of fermions with random interactions of mean-square-value J , with total fermion number \mathcal{Q} ,
at temperatures $T \ll J$

and

Charged black holes in 3+1 dimensions of radius R_h ,
with total charge \mathcal{Q} , at temperatures $T \ll 1/R_h$

are described by a common low energy quantum
theory in 0 + 1 dimensions