Séminaire commun

Wilson Loops and Bubbling Wormholes

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Mardi 16 Janvier 2024 à 14:00

LPENS – L382/L384 (24 Rue Lhomond)

Résumé

Euclidean wormholes are exotic types of gravitational solutions that still challenge our physical intuition and understanding. After briefly reviewing universal properties of asymptotically AdS wormhole solutions from a gravitational (bulk) point of view and the paradoxes they raise, I will describe some concrete (microscopic) field theoretic setups and models that exhibit such properties. These models can be reduced to matrix integrals and crucially involve correlated (”entangled”) sums of representations of the boundary symmetry group. Our focus will be the example of heavy correlated Wilson loops in N=4 SYM and their dual ”bubbling wormhole” geometries in type IIB SUGRA.