



Laboratory for Elementary Particle
Physics (LEPP)

Theory Seminar

BRST vs. EPR: The Maxwell Story



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Abstract: The question of whether entanglement entropy in gauge theories is BRST invariant has an odd answer: two different representatives of a BRST cohomology class have different entanglements, but the replica trick path integral commonly used to calculate entanglement is invariant under BRST transformations. After short introductions to entanglement in gauge theories and Hamiltonian BRST quantization, I will explain why this is so and how it evades the usual arguments about the equivalence between the path integral and the Hamiltonian pictures. Finally, I will comment on the possibility of a prescription to "fix" the Hamiltonian calculation -- to make it BRST-invariant and equal to the answer given by the replica trick.

Webinar

Tuesday November 21st, 2017

11:30am

401 Physical Sciences Building