BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

SUPERSYMMETRY AND LEGENDRIAN KNOTS

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MCS B31, Sep 28, 2022, 4-5pm

Tea: 3:45pm in Room B24

Abstract: I will discuss a new relationship between supersymmetric gauge theory in dimension three and quantum knot invariants such as the Jones polynomial. This relationship follows from the existence of a new class of supersymmetric Wilson loop operators in pure $N = 2$ supersymmetric Yang-Mills-Chern-Simons theory. These Wilson loops preserve one supercharge on-shell and wrap arbitrary Legendrian knots in the standard contact structure on $\mathbb{R}^3$.

See http://math.bu.edu/research/geom/seminar.html or contact Yu-Shen Lin (*yslin@bu.edu*) or Siu-Cheong Lau (*lau@math.bu.edu*) for more information.