Physics Seminar: Yegor Zenkevich
Wednesday, March 20 · 2:00 – 3:00pm in room 313

Title: An R-matrix construction of qq-characters

Abstract: qq-characters originate from gauge theory partition functions and are "quantizations" of q-characters of Kac-Moody algebras. The q-characters are essentially traces of the universal R-matrix of the corresponding algebras. We show that qq-characters can also be obtained from R-matrices, but for a larger algebra - the quantum toroidal one. The relevant Kac-Moody algebra and its representation are encoded in a network of intertwining operators that can be drawn as a brane diagram. Time permitting, we will also discuss how a similar algebraic construction describes K-theoretic vertex function counting sheaves on C^3.