Twisted T-duality and Quantization

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Tea 2:45-3 in MCS 153

Abstract: T-duality is believed to be a fundamental symmetry of string theory. Several mathematical interpretations have been proposed and each has lead to impressive results, including homological mirror symmetry and the geometric Langlands conjecture. However, the geometry behind some physically relevant versions of T-duality remains mysterious. In this talk, we discuss T-duality in presence of a topologically non-trivial gerbe. After introducing the so-called "doubled formalism", due to C. Hull, we offer our own interpretation in the language of certain algebraic structure related to vertex algebras. This is joint work with R. Heluani.