



HARVARD UNIVERSITY
17 Oxford Street
Cambridge, MA 02138

Mathematical Picture Language Seminar



Thursday, Oct 23

4:00 p.m. Boston time

Jefferson 368

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Tensor networks, fusion categories and operator algebras

Abstract: Certain 4 -tensors have been used to study two-dimensional topological order, and we identified them with bi-unitary connections in subfactor theory of Jones before. This identification gives a description of a fusion category using a (possibly non-flat) bi-unitary connection, which arises as quantum $6j$ -symbols for a multi-fusion category. We further advance this identification by working on the zipper condition, which is a kind of pentagon equation, and flat fields of strings.

<https://mathpicture.fas.harvard.edu/seminar>