



UNIVERSITY OF CALIFORNIA RIVERSIDE

DEPARTMENT OF MATHEMATICS

COLLOQUIUM

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“A new finite depth subfactor which appears in a quadrilateral of factors”

Abstract:

A subfactor is a pair of von Neumann algebra with inclusion $\$N \subset M\$$. The study of classification of subfactors was initiated by V.Jones and has been developed in the past few decades, involving various areas of mathematics, such as low-dimensional topology, conformal field theory. In the recent years, intermediate subfactors $\$N \subset P \subset M\$$ has been studied.

A quadrilateral of factors is a pair of intermediate subfactors $\$N \subset P \subset M\$$, $\$N \subset Q \subset M\$$ s.t. $\$P \vee Q = M\$$, $\$P \wedge Q = N\$$. We show that there is a quadrilateral of factors with some conditions, so that $\$P \subset M\$$ is a subfactor with index $\$(5+\sqrt{17})/2\$$, and $\$N \subset P\$$ is a subfactor with index $\$(7+\sqrt{17})/2\$$. This work is joint with Pinhas Grossman.

Wednesday, October 26th, 2011

Surge 284

4:10-5:00pm

Tea Time at 3:40pm