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*A new proof of the known cases of Sidorenko's conjecture*

Leonardo Nagami Coregliano  
The University of Toronto and the University of Sao Paulo

**Abstract:** One of the simplest statements of Sidorenko's conjecture is an inequality bounding the homomorphism density from a bipartite graph to a non-empty graph. Due to extensive research the conjecture has been established for various classes of bipartite graphs. The proofs, however, are often complicated and seem to have little relation to one another. Recently (in a yet unpublished paper), Balazs Szegedy gave a new, unified proof of all known cases for which Sidorenko's conjecture has been established. Our aim in this talk is to give some idea of how this proof goes and to discuss which cases it covers.

Friday, April 26, 2013, 4:00 pm  
Mathematics and Science Center: W303

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