

*Department of Mathematics,
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Math 295 - Mathematics Colloquium

Prof. Joseph (JM) Landsberg

Texas A&M University

Geometry and the complexity of matrix multiplication

Abstract:

In 1968 V. Strassen discovered the usual way we multiply matrices is not the most efficient one. This raised the question as to just how efficiently matrices can be multiplied, and led to the astounding conjecture that for large matrices, it is almost as easy to multiply them as to add them. After giving a brief history of the problem, I will explain how algebraic geometry and representation theory gives insight into this central question in computer science.

Host: Steven Sam

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4:00 PM

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