Total positivity and paths in graphs

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Thursday, October 18, 2001
102 Bradley Hall, 4:00 pm
(Tea 3:30 pm Math Lounge)

Abstract

A matrix is called *totally nonnegative* if all of its minors are nonnegative. Such matrices arise in various areas of mathematics and have an interesting characterization in terms of paths in directed graphs. We will present this characterization and show how it provides proofs-by-pictures of several algebraic results.

This talk will be accessible to anyone who has taken linear algebra.

This talk should be accessible to undergraduates.

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