

TOTAL POSITIVITY AND CLUSTER ALGEBRAS

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ABSTRACT. A matrix is *totally positive* if all its minors are positive. An $n \times n$ matrix has altogether $\binom{2n}{n} - 1$ minors. This makes it impractical to test positivity for every single minor.

In this talk we will focus on finding efficient criteria for total positivity that would only check a small fraction of all minors and the connection to Cluster algebras.