

# Grothendieck-to-Lascoux Expansions

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## **Abstract**

We establish the conjecture of Reiner and Yong for an explicit combinatorial formula for the expansion of a Grothendieck polynomial into the basis of Lascoux polynomials. This expansion is a subtle refinement of its symmetric function version due to Buch, Kresch, Shimozono, Tamvakis, and Yong, which gives the expansion of stable Grothendieck polynomials indexed by permutations into Grassmannian stable Grothendieck polynomials. Our expansion is the K-theoretic analogue of that of a Schubert polynomial into Demazure characters, whose symmetric analogue is the expansion of a Stanley symmetric function into Schur functions.

This is a joint work with Mark Shimozono.