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# The twist for positroids

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## Abstract

There are two reasonable ways to put a cluster structure on a positroid variety. In one, the initial seed is a set of Plücker coordinates. In the other, the initial seed consists of certain monomials in the edge weights of a plabic graph. We will describe an automorphism of the positroid variety, the twist, which takes one to the other. For the big positroid cell, this was already done by Marsh and Scott; we generalize their results to all positroid varieties. This also provides an inversion of the boundary measurement map which is more general than Talaska's, in that it works for all reduced plabic graphs rather than just Le-diagrams. This is the analogue for positroid varieties of the twist map of Berenstein, Fomin and Zelevinsky for double Bruhat cells. Our construction involved the combinatorics of dimer configurations on bipartite planar graphs.

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