

Lascoux has generalized the classical Cauchy kernel expansion to arbitrary Ferrers shapes so that the former is a limit case of the latter. The non-symmetric version of the Cauchy formula expands in the product of Demazure atoms and characters under the action of Demazure operators specified by the cells above the biggest staircase inside the Ferrers shape. We give a bijective proof of this expansion for near staircases based on a growth-diagram interpretation of Mason's Robinson-Schensted-Knuth correspondence analogue for semi-skyline augmented fillings. Previously, we have studied for truncated staircases. Joint work with Olga Azenhas.