1138-05-346 **Jonah Blasiak*** (`jblasiak@gmail.com`). *Catalan polynomials and k-Schur functions.*

Li-Chung Chen and Mark Haiman studied a family of symmetric functions indexed by pairs consisting of a partition contained in the staircase $(n-1, \ldots, 1, 0)$ (of which there are Catalan many) and a weight in $\mathbb{Z}^n$. These *Catalan polynomials* include the Hall-Littlewood polynomials and their parabolic generalizations and can be viewed as GL_n-equivariant Euler characteristics of vector bundles on the flag variety. Chen-Haiman conjectured that the k-Schur functions are a subclass of Catalan polynomials. We settle their conjecture and deduce several exciting consequences. This is joint work with Jennifer Morse, Anna Pun, and Dan Summers. (Received February 12, 2018)

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