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Jonah Blasiak* (jblasiak@gmail.com). *Kronecker coefficients for one hook shape.*

The Kronecker coefficient $g_{\lambda\mu}$ is the multiplicity of an irreducible \mathcal{S}_n -module M_ν in the tensor product $M_\lambda \otimes M_\mu$. A fundamental open problem in algebraic combinatorics is to find a positive combinatorial formula for these coefficients. We give such a formula in the case that one of the partitions is a hook shape. Our main tool is Haiman's *mixed insertion*, which is a generalization of Schensted insertion to colored words. (Received August 29, 2012)