## KARTIK SINGH, University of Waterloo

The quasisymmetric Macdonald polynomials are quasi-Schur positive at t = 0

The quasisymmetric Macdonald polynomials  $G_{\gamma}(X;q,t)$  are a quasisymmetric refinement of the  $P_{\lambda}(X;q,t)$ 's that specialize to the quasisymmetric Schur functions  $QS_{\gamma}(X)$ . We study the t = 0 specialization  $G_{\gamma}(X;q,0)$ , which can be described as a sum over weighted multiline queues. We show that  $G_{\gamma}(X;q,0)$  expands positively in the quasisymmetric Schur basis and give a charge formula for the quasisymmetric Kostka-Foulkes polynomials  $K_{\gamma,\alpha}(q)$  in the expansion  $G_{\gamma}(X;q,0) = \sum_{\alpha} K_{\gamma,\alpha}(q) QS_{\alpha}(X)$ .