Macdonald polynomials with shifted parameters. Preliminary report.

The classical Weyl character formula for the type A root system states that the Schur function $s_\lambda = a_\lambda^{1/2}$, where $a_{\lambda+\rho} = \det[x_i^{\lambda_j+n-j}]$ (and $a_{\rho}$ is the Vandermonde determinant). More generally, the Macdonald polynomial $P_\lambda(q,t)$ is a symmetric function which specializes to $s_\lambda$ at $q = t = 0$. In this case, the $qt$-analogue of the Weyl character formula expresses the Macdonald polynomial with shifted parameters as $P_\lambda(q,qt) = \frac{A_{\lambda+\rho}(q,t)}{A_{\rho}(q,t)}$. Inspired by this, we use the alcove walk model for computing Macdonald polynomials to obtain a combinatorial formula for expressing the shifted $P_\lambda(q,qt)$ as a linear combination of $P_\nu(q,t)$. This is joint work with A. Ram and M. Yoo. (Received September 17, 2013)