1116-05-2767   **Mirkó Visontai*** (`visontai@math.kth.se`), **Petter Brändén** and **Matthew Chasse**.
Seperation of the zeros of q-Eulerian polynomials.

The MacMahon–Carlitz q-analog of the Eulerian polynomial is a two-variable generating function of the joint distribution of descent and the major index statistic over permutations, $A_n(x, q) = \sum_\pi x^{\mathrm{des}\pi} q^{\mathrm{maj}\pi}$. In this talk, we show that the zeros of these q-Eulerian polynomials are all real and are "logarithmically spaced", in the sense that the ratio of the consecutive zeros is at least q (for $q > 1$). The proof is then extended to signed permutations and is also used to settle a more general conjecture of Chow and Mansour for the case of colored permutations. (Received September 22, 2015)

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