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Jim Haglund* (jhaglund@math.upenn.edu), 209 S. 33rd St., math dept., UPenn, Philadelphia, PA 19104-6395. *Rook Theory and Eulerian Polynomials.*

Riordan showed that Eulerian polynomials and their multiset generalizations are special cases of rook polynomials. In this talk we discuss how multivariate stable Eulerian polynomials arise in the solution of a question of the speaker, Ono, and Wagner on zeros of permanents, a question which was motivated by rook theory. We also outline some recent results of the speaker and Visontai which introduce other multivariate extensions of Eulerian polynomials. (Received August 24, 2012)