1107-17-479 **Cristian Lenart*** (clenart@albany.edu), State University of New York at Albany, **Satoshi Naito**, Tokyo Institute of Technology, Japan, **Daisuke Sagaki**, University of Tsukuba, Japan, **Anne Schilling**, University of California Davis, and **Mark Shimozono**, Virginia Polytechnic Institute. *Kirillov-Reshetikhin modules, Macdonald polynomials, and categorification.*

The (symmetric) Macdonald polynomials are Weyl group invariant polynomials with rational function coefficients in q, t, which specialize to the irreducible characters of semisimple Lie algebras upon setting $q = t = 0$. Kirillov-Reshetikhin (KR) modules are certain finite-dimensional modules for affine Lie algebras. We showed that a Macdonald polynomial specialized at $t = 0$ equals the graded character of a corresponding tensor product of (one-column) KR modules. The proof is based on exhibiting a common combinatorial model, called the quantum alcove model, for the two objects. I will also mention the work of Chari-Ion and Khoroshkin based on our result, leading to a categorification of Macdonald polynomials. (Received January 20, 2015)