Mark Shimozono, Virginia Tech

*Crystals, combinatorics, and $k$-Schur functions*

The four lectures will cover the following topics:

- Affine crystal theory for type A.
- Generalized Kostka polynomials associated with restriction to a Levi subgroup, and the associated tableau combinatorics for type A.
- The $k$-Schur functions of Lapointe, Lascoux and Morse.