

1106-05-889

**Cristian Lenart\*** (clenart@albany.edu), Department of Mathematics and Statistics, State University of New York at Albany, 1400 Washington Avenue, Albany, NY 12222, and **Arthur Lubovsky** (alubovsky@albany.edu), Department of Mathematics and Statistics, State University of New York at Albany, 1400 Washington Avenue, Albany, NY 12222. *On the alcove model for Kirillov-Reshetikhin crystals.*

Kirillov-Reshetikhin (KR) crystals are colored directed graphs encoding the structure of certain finite-dimensional representations of affine Lie algebras. In recent joint work S. Naito, D. Sagaki, A. Schilling, and M. Shimozono, I gave a uniform realization of a tensor product of (column shape) KR crystals, for all untwisted affine types, in terms of the so-called quantum alcove model. I will present new results related to this model: its independence from an initial choice (of a chain of roots), and an application to a uniform realization of the combinatorial  $R$ -matrix (i.e., the unique affine crystal isomorphism permuting factors in a tensor product of KR crystals). (Received September 08, 2014)