1112-05-351 **Oliver Pechenik*** (pecheni2@illinois.edu), Department of Mathematics, 1409 W. Green Street, Urbana, IL 61801, and **Alexander Yong**. *Knutson-Vakil puzzles compute equivariant K-theory of Grassmannians.*

Puzzles are combinatorial objects introduced by A. Knutson and T. Tao in their solution of the Horn problem on eigenvalues of Hermitian matrices. By work of A. Knutson and R. Vakil, puzzles are known to encode certain geometric degenerations relevant to the Schubert calculus of Grassmannians. In 2005, A. Knutson and R. Vakil used puzzles to conjecture the first combinatorial rule for the Schubert structure coefficients in the torus-equivariant K-theory of Grassmannians. We resolve this conjecture by relating it to our recent tableau rule for the same coefficients. (Received August 08, 2015)