Anders S. Buch* (asbuch@math.rutgers.edu). Equivariant cohomology of two-step flag varieties.

I will present a proof of my conjectured puzzle formula for the equivariant Schubert structure constants of two-step flag varieties. This formula generalizes Knutson and Tao’s puzzle rule for the equivariant cohomology of Grassmannians, as well as the cohomological puzzle rule for two-step flag varieties that was conjectured by Knutson in 1999 and proved recently by Kresch, Purbhoo, and the speaker. My results together with the equivariant version of the ‘quantum equals classical’ theorem implies a Littlewood-Richardson rule for the equivariant quantum cohomology of Grassmannians. (Received September 17, 2013)