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Elizabeth Beazley, Anna Bertiger* (abertige@uwaterloo.ca) and **Kaisa Taipale**. *Cyclic Factorial Schur Polynomials and Geometry*. Preliminary report.

The Peterson isomorphism relates the homology of the affine Grassmannian and the quantum cohomology of flag varieties. Both sides carry rich symmetric function theories, but it's not trivial to see how they're related. This talk will discuss preliminary results toward relating "cyclic factorial Schur" polynomials, which the authors used to prove the equivariant rim hook rule for the quantum cohomology of the Grassmannian, with k-double Schur functions, which give the homology classes for the affine Grassmannian. The Peterson isomorphism says that the two must be related, but the symmetric function side is only slowly being discovered. (Received September 16, 2014)