1026-14-83   **Anders S. Buch*** (asbuch@math.rutgers.edu) and **Leonardo C. Mihalcea**. *Equivariant Gromov-Witten invariants of Grassmannians.* Preliminary report.

I will speak about joint work with L. Mihalcea, in which we prove that all equivariant (3-point, genus zero) Gromov-Witten invariants on Grassmannians are equal to equivariant triple-intersections on two-step flag varieties. This is a continuation of work with A. Kresch and H. Tamvakis, which established this result for the ordinary GW invariants. The non-equivariant case was obtained by showing that the curves counted by a Gromov-Witten invariant are in bijection with their kernel-span pairs, which consist exactly of the points in a triple-intersection of two-step Schubert varieties. Since the equivariant GW invariants have no enumerative interpretation (and also because they are defined relative to Schubert varieties that are not in general position), the proof in the equivariant case must be based on intersection theory. The main new construction is a blow-up of Kontsevich's moduli space that makes it possible to assign a kernel-span pair of the expected dimensions to every curve. By utilizing a construction of Chaput, Manivel, and Perrin, these results can be extended to all (co)minuscule homogeneous spaces. (Received February 15, 2007)