Abstract: I'll discuss the structure of the (orbifold) symmetric products of projective spaces $\text{Sym}^d(\mathbb{P}^r)$, focusing on the orbits of the natural torus action. These orbits vary in nice moduli spaces, for example, components of the moduli space of 1-dimensional orbits are naturally identified with certain toric compactifications of $\mathcal{M}_{0,n}$. I will then discuss how one can use these orbits to calculate Gromov-Witten invariants of $\text{Sym}^d(\mathbb{P}^r)$. If I have time, I'll also talk about the analog when $\text{Sym}^d(\mathbb{P}^r)$ is replaced with the Hilbert scheme of points in $\mathbb{P}^2$.

See [http://math.bu.edu/research/geom/seminar.html](http://math.bu.edu/research/geom/seminar.html) or contact Yoosik Kim (yoosik@bu.edu) or Siu-Cheong Lau (lau@math.bu.edu) for more information.