1157-55-274 **Ronno Das*** (ronnodas@gmail.com) and **Benjamin O'Connor**. *Noncollinear points on the projective plane.*

The space F_n of n points in the projective plane such that no 3 are collinear is an open subspace of $(\mathbb{P}^2)^n$. The cohomology of F_n with the S_n action by permuting coordinates is representation stable, but explicit computations are hard. We compute the cohomology of F_6 by counting such 6-tuples over the finite field $\mathbb{F}_q$ (with a 'twist') and using the Grothendieck–Leftschetz trace formula. Unfortunately $n > 6$ is still hard. (Received January 31, 2020)