

1073-53-222

Jason Cantarella* (jason.cantarella@gmail.com), UGA Math Department, Boyd GSRC, Athens, GA 30602. *Grassmannians, polygons and curves in \mathbb{R}^2 and \mathbb{R}^3* . Preliminary report.

This (mostly expository) talk explains the identification between the Grassmannian $\mathbb{C}(2, n)$ and the space of n -gons in \mathbb{R}^3 given by Knutson and Hausman and extends it to space curves. This gives a new way to look at curves in two and three dimensions which seems likely to be quite useful in explaining geometric properties of knots and polygons. (Received August 01, 2011)