1115-14-42 **Gavril Farkas** and **Nicola Tarasca*** (tarasca@math.utah.edu). *Pointed Castelnuovo numbers.*

The classical Castelnuovo numbers count linear series of minimal degree and fixed dimension on a general curve, in the case when this number is finite. Castelnuovo's work dates back to the 1880's and uses a subtle degeneration argument and Schubert calculus. In this talk, I will present a formula for the number of linear series on a general curve with prescribed ramification at an arbitrary point, when the expected number is finite. As an application, I will show how to solve certain enumerative problems on moduli spaces of curves, and how to obtain improved bounds for the slope of the cone of effective divisor classes on symmetric products of a general curve. (Received August 24, 2015)