1145-13-2214 **Erin Bela*** (bela@juniata.edu). *Numerical Maculification in Arbitrary Codimension.*

An ideal $J \subset k[x_0, \cdots, x_n]$ is said to be *Numerically ACM* (NACM) if R/J has the Hilbert function of some codimension c ACM subscheme of $\mathbb{P}^n$. In this talk, I describe an algorithm which takes an arbitrary ideal and produces, via a finite sequence of basic double links, an ideal which is NACM. An immediate consequence of this result is that every even liaison class of codimension c subschemes of $\mathbb{P}^n$ contains elements which are NACM. This was first proved for the codimension two case by Migliore and Nagel, and I demonstrate that these results can be extended to higher codimension.

Let $\mathcal{L}$ denote the even liaison class of three skew lines in $\mathbb{P}^4$, and let $\mathcal{L}_S$ denote the even liaison class of three skew lines on a smooth hypersurface $S \subset P^4$ of degree $d \geq 2$. It is possible to give a complete description of the sequences of basic double links which (in S) produce curves which are NACM. I conclude by using this to show that the subset of $\mathcal{L}_S$ consisting of NACM subschemes, denoted by $\mathcal{M}_S$, fails to have the Lazarsfeld-Rao property. (Received September 25, 2018)