1120-13-242 **Solomon Akesseh*** (sakesseh2@math.unl.edu), University of Nebraska Lincoln - Math Dept, 210 Avery Hall, Lincoln, NE 68588-0130. *Ideal containments under flat extensions.*

Let $\varphi : S = k[y_0, ..., y_n] \to R = k[y_0, ..., y_n]$ be given by $y_i \to f_i$ where $f_0, ..., f_n$ is an $R$-regular sequence of homogeneous elements of the same degree. A recent paper shows for ideals, $I_\Delta \subseteq S$, of matroids, $\Delta$, that $I_\Delta^{(m)} \subseteq I^r$ if and only if $\varphi_*(I_\Delta)^{(m)} \subseteq \varphi_*(I_\Delta)^r$ where $\varphi_*(I_\Delta)$ is the ideal generated in $R$ by $\varphi(I_\Delta)$. We prove this result for saturated homogeneous ideals $I$ of configurations of points in $\mathbb{P}^n$ and use it to obtain new counterexamples to $I^{(3)} \subseteq I^2$ from previously known counterexamples. (Received February 22, 2016)