1163-13-586 **Thomas Polstra*** (`tp2tt@virginia.edu`) and **Karl Schwede**. *Compatible ideals in Gorenstein rings.*

Compatible ideals in prime characteristic rings play a role similar to those of multiplier ideals in complex birational algebraic geometry. Compatible ideals arise naturally as follows: if $R \to S$ is a finite map of local prime characteristic rings, then the ideal $I \subseteq R$ which is the sum of images of all R-linear maps $S \to R$ is a compatible ideal of R. We show that if R is $\mathbb{Q}$-Gorenstein of index relatively prime to the characteristic then every compatible ideal of R must arise this way. Namely, if $I \subseteq R$ is a compatible ideal, then there exists a finite extension $R \to S$ such that I is the sum of all images of R-linear maps $S \to R$. This is joint work with Karl Schwede. (Received September 10, 2020)