1161-18-8 **Alina Iacob*** (`aiacob@georgiasouthern.edu`). *Generalized Gorenstein injective modules.*

We introduce a generalization of the Gorenstein injective modules - the Gorenstein FP_n-injective modules, denoted $\mathcal{GI}_n$. They are the cycles of the exact complexes of injective modules that remain exact when applying a functor $Hom(A, -)$, with A an FP_n-injective module. Thus $\mathcal{GI}_0$ is the class of classical Gorenstein injective modules, and $\mathcal{GI}_1$ is the class of Ding injective modules. We prove that when $n \geq 2$, the class $\mathcal{GI}_n$ is the right half of a perfect cotorsion pair, and therefore it is an enveloping class. For $n = 1$ we show that $\mathcal{GI}_1$ (i.e. the Ding injectives) forms the right half of a hereditary cotorsion pair. (Received July 03, 2020)