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Daniel Bravo, Sergio Estrada, Alina Iacob* (aiacob@georgiasouthern.edu) and **Marco Perez**. *FP_n -injective and FP_n -flat covers and preenvelopes; Gorenstein AC-flat covers.*

We prove that, for any $n \geq 2$, the classes of FP_n -injective modules and of FP_n -flat modules are both covering and preenveloping over any ring R . Then we define a generalization of the class of Gorenstein flat modules - the Gorenstein AC-flat modules. Assuming closure under extensions for Gorenstein AC-flat modules, we construct a model structure on $R - Mod$ in which these modules are the cofibrant objects. (Received February 04, 2018)