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Hannah E Burson* (hburson@umn.edu) and **Dennis Eichhorn**. *Coaugmented partitions: properties and conjectures.*

In a study of the third order mock theta functions, George Andrews introduced the function $\mathcal{EO}^*(2n)$, which counts the number of partitions where each even part is less than each odd part and only the largest even part appears an odd number of times. In this talk, we talk about a new class of partition theoretic objects, called coaugmented partitions, that generalize the partitions counted by $\mathcal{EO}^*(2n)$. We will discuss some properties of coaugmented partitions, such as their infinite product generating function and some remarkable symmetry. Then, we will explore some conjectures and problems for further research. (Received September 14, 2021)