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**Amanda Lohss\*** (aglohss@gmail.com). *Tableaux and the ASEP.*

Several variations of Young tableaux have recently been introduced due to connections with the asymmetric simple exclusion process (ASEP), an important particle model which has been studied extensively in physics, biology, and other sciences. In particular, tableaux provide a combinatorial formula for the steady state distribution of the ASEP. This talk will introduce the ASEP and its connection with tableaux. In addition, several results regarding tableaux and the ASEP will be discussed that confirm previous conjectures. (Received September 08, 2017)