

We look at the fluctuations of the particle current in stationary one-dimensional asymmetric particle systems with nonlinear flux. It is expected that the current seen by an observer traveling at the characteristic speed has fluctuations of magnitude $t^{1/3}$ and limits that obey Tracy-Widom related distributions. The correct order of magnitude (in the sense of variance bounds) is known for asymmetric exclusion processes and some flavors of zero range and bricklayer processes. For exclusion processes exact distributional limits are also known. This talk discusses the case of zero range processes. We explain how the variance bound for the current follows from superdiffusive moment bounds for a second class particle. The proofs rely on coupling constructions. (Joint work with Márton Balázs and Júlia Komjáthy, Budapest.)