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Samuel Zbarsky* (sa_zbarsky@yahoo.com). *Unimodality of Partitions in Near-Rectangular Ferrers Diagrams.*

We look at the rank generating function G_λ of partitions inside the Ferrers diagram of some partition λ , investigated by Stanton in 1990, as well as a closely related problem investigated by Stanley and Zanello in 2013. We show that G_λ is not unimodal for a larger class of 4-part partitions than previously known, and also that if the ratios of parts of λ are close enough to 1 (depending on how many parts λ has), or if the first part is at least half the size of λ , then G_λ is unimodal. (Received September 09, 2014)