

Abstract Submitted
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Stress distributions of jammed particle clusters and the maximum entropy principle¹ YEGANG WU, STEPHEN TEITEL, University of Rochester — Using a simple model of frictionless bidisperse disks in two dimensions, we consider the distribution of stress on finite clusters of particles, within a statically jammed granular system at fixed global stress tensor. We compare our results against recent theories of the stress ensemble [1] and force network model [2] to investigate whether the distribution of stress is well described by a maximum entropy assumption.

[1] B. P. Tighe, A. R. T. van Eerd, and T. J. H. Vlugt, PRL 100, 238001 (2008);

[2] S. Henkes and B. Chakraborty, PRE 79, 061301 (2009)

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