

Erratum: Vibration-Induced Granular Segregation: A Phenomenon Driven by Three Mechanisms [Phys. Rev. Lett. 92, 114301 (2004)]

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The density of the tapioca particles used in our study was $\rho_b = 1.18$ g/cc, not 0.57 g/cc as erroneously reported. Thus, the ρ_r axis in Figs. 1, 2, and 3 must be contracted by a factor of $0.57/1.18 = 0.48$. For instance, the correct Fig. 1 is shown below. Although the conclusions of our Letter remain unchanged, it is worth noting that the transition between convection and inertia occurs not at $\rho_r \approx 1$ but at $\rho_r \approx 0.57$. Thus, wherever $\rho_r \approx 1$ appears in the text, it should read $\rho_r \approx 0.57$. In the inset of Fig. 3, instead of $\rho_r < (>)1$ it should read $\rho_r < (>)0.57$. Finally, we would like to emphasize two important points: that this transition is now in agreement with previous results obtained using a different granular bed [1], and the interesting fact that the transition occurs when the density of an intruder is similar to the effective density of the bed, 0.67 g/cc, which is the product of 0.57 and 1.18 g/cc (being 0.57 approximately the volume fraction of a random loose packing phase [2]).

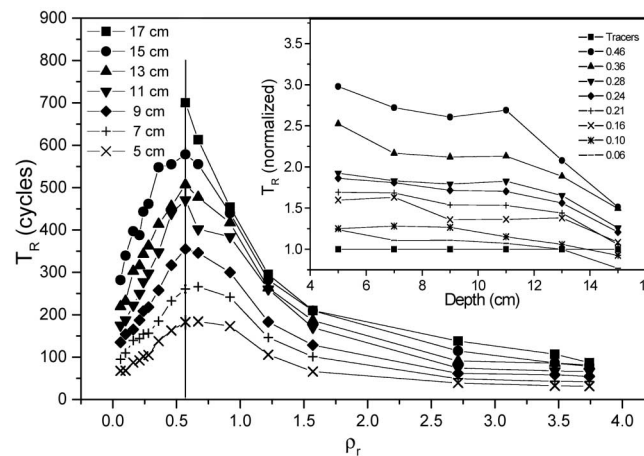


FIG. 1. Dimensionless rising times T_R as a function of relative density for seven different depths. Inset: dimensionless intruder rise times as a function of depth for different relative densities less than 0.57.

[1] M. E. Möbius, B. E. Lauderdale, S. R. Nagel, and H. M. Jaeger, *Nature (London)* **414**, 270 (2001).

[2] G. D. Scott, *Nature (London)* **188**, 908 (1960).