

**Erratum: Disordered Solids without Well-Defined Transverse Phonons:  
The Nature of Hard-Sphere Glasses  
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Xipeng Wang, Wen Zheng, Lijin Wang, and Ning Xu  
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In Fig. 1(e) of our Letter, the longitudinal Ioffe-Regel frequency  $\omega_{\text{IR}}^L$  seems to approach a nonzero plateau at low pressures  $p$ . We thus claim that  $\omega_{\text{IR}}^L > 0$  at the zero temperature ( $T = 0$ ) jamming transition denoted as point  $J$ . We have noticed that this is an incorrect extrapolation for systems with Hertzian repulsion. For Hertzian repulsion, because the longitudinal speed of sound  $c_L \sim p^{1/6}$  at  $T = 0$ ,  $\omega_{\text{IR}}^L = 2\pi c_L / \lambda_{\text{IR}}^L$  has to be zero at point  $J$  ( $p = 0$ ). However, our data indicate that the length associated with the longitudinal Ioffe-Regel limit  $\lambda_{\text{IR}}^L$  remains almost constant and finite at low pressures. It is still valid that  $\lambda_{\text{IR}}^L$  does not diverge at point  $J$ . Therefore, the vanishing of  $\lambda_{\text{IR}}^L$  at point  $J$  is a *trivial* consequence of the vanishing of  $c_L$ . The low-pressure behavior of  $\lambda_{\text{IR}}^L$  thus trivially follows that of  $c_L$ . What we are actually concerned about is the *nontrivial* vanishing of the Ioffe-Regel frequency associated with the divergence of the length. For widely studied systems with harmonic repulsion [ $\alpha = 2$  in Eq. (1) of the Letter, whose results are not shown], because  $c_L > 0$  and  $\lambda_{\text{IR}}^L$  remains finite approaching point  $J$ , the extrapolation that  $\omega_{\text{IR}}^L > 0$  at point  $J$  is correct. Our major results and conclusions are unchanged.