

CORRIGENDUM

The stress tensor in a granular flow at high shear rates

By S. B. SAVAGE AND D. J. JEFFREY

Journal of Fluid Mechanics, vol. 110, 1981, pp. 255–272

The Maxwellian velocity distribution that is given in the paper as equation (2.12) must be corrected by replacing \bar{v}^2 everywhere it appears by $\frac{2}{3}\bar{v}^2$, thus

$$f^{(1)}(\mathbf{c}_1, \mathbf{r}_1; \mathbf{u}(\mathbf{r}_1)) = (\pi \frac{2}{3} \bar{v}^2)^{-\frac{3}{2}} \exp \left\{ -\frac{3}{2} (\mathbf{c}_1 - \mathbf{u}(\mathbf{r}_1))^2 / \bar{v}^2 \right\}.$$

This distribution correctly fulfills the normalization conditions

$$\int f^{(1)} d\mathbf{c}_1 = n, \quad \int \mathbf{c} f^{(1)} d\mathbf{c}_1 = n\mathbf{u}, \quad \int (\mathbf{c} - \mathbf{u})^2 f^{(1)} d\mathbf{c} = n\bar{v}^2.$$

All subsequent occurrences of \bar{v}^2 (both in the text and the figures) must be similarly changes to $\frac{2}{3}\bar{v}^2$. The comparisons with experiment (figures 6 and 9), however, are not changed because the results were fitted using the parameter R and no independent estimate of \bar{v}^2 was made.