Equations of motion in linearised gravity: IV External fields

1980 J. Phys. A: Math. Gen. 13 771

(http://iopscience.iop.org/0305-4470/13/2/539)

J. Phys. A: Math. Gen., **13** (1980) 771. Printed in Great Britain

Corrigenda

Equations of motion in linearised gravity: IV External fields
Hogan P A 1979 *J. Phys. A: Math. Gen.* **12** 1781–93

Equation (3.9) should read

$$f(\xi) = (1-\xi^2)[1+2ma\xi - 2ka^{-1}(1-r_0a\xi)] - 4ka^{-1}\xi^2 + 2kr_0\xi^3.$$

Equation (3.10*b*) should read

$$\xi = \xi_0 + ma(1-\xi_0^2)[1-\ln(1-\xi_0^2)] - 2ka^{-1}(\xi_0 - \tfrac{1}{2}r_0a\xi_0^2).$$

Equation (3.11) should read

$$\int_{\xi_1}^{\xi_2} \hat{K}\xi \, d\xi = 4ma + O_2$$

where $\xi_1 = -1 + kr_0 + 2ka^{-1}$, $\xi_2 = 1 + kr_0 - 2ka^{-1}$. The node at $\xi = \xi_1$ is removed by choosing $\mu = 1 - 2ma + O_2$ and, as already pointed out, the external field (3.5) is not capable of removing the node at $\xi = \xi_2$ in the linear approximation.

The k-dependence of the long-time diffusion in systems of interacting Brownian particles
Grüner F and Lehmann W 1979 *J. Phys. A: Math. Gen.* **12** L303–7

Due to a computational error the correction of the data of Pusey (1978) in our figure 2 was heavily overestimated with regard to the multiple scattering. Thus there is only reasonable agreement between our data and the data of Pusey (1978) for wavevectors k, which are equal to or larger than k_{max}, the position of the peak in the static structurefactor $S(k)$.

As pointed out by Pusey (1979) the rather large discrepancy at small wavevectors is probably due to the more pronounced polydispersity present in the samples with small radius of the spheres (0·025 μ) used by him.

We are indebted to P N Pusey for a helpful discussion and for leaving us a preprint of his recent paper

References

Pusey P N 1978 *J. Phys. A: Math. Gen.* **11** 119
Pusey P N 1979 *Preprint to appear in the Proceedings of the Workshop on Quasielastic Light Scattering, Milan*