

CORRIGENDUM

On the collision of drops in turbulent clouds

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Mr J. F. B. Payne has pointed out that there is a printing error in the intermediate stage of the argument leading to equation (1). In the third line of the paragraph containing this equation, there is a $\pi^{\frac{1}{2}}$ missing in the denominator of the expression for $|\overline{\partial u/\partial x}|$, which should properly read

$$|\overline{\partial u/\partial x}| = (2\epsilon/15\nu\pi)^{\frac{1}{2}}.$$

There is no error in equation (1), which was printed correctly, for the collision rate $N = n_1 n_2 (r_1 + r_2)^3 (8\pi\epsilon/15\nu)^{\frac{1}{2}}$.

Dr M. M. R. Williams has recently discovered independently the inconsistency between the printed expression for $|\overline{\partial u/\partial x}|$ and the collision rate given in equation (1).

Mr Payne has commented further that the printing error has unfortunately affected the formula given by J. H. Seinfeld (*Atmospheric Chemistry and Physics of Air Pollution*, Wiley, 1986), who gives for the collision rate the Saffman–Turner expression multiplied by $\pi^{\frac{1}{2}}$ which results from using the incorrect expression for $|\overline{\partial u/\partial x}|$. Also, Mr Payne notes that the conclusion drawn by S. Balachandar & M. R. Maxey (*Proceedings 6th Symposium on Turbulent Shear Flow, Toulouse 1987*), that a log-normal distribution for $\partial u/\partial x$ predicts agglomeration rates better than the normal distribution assumed by Saffman & Turner, is not justified as it is based on the incorrectly printed expression for $|\overline{\partial u/\partial x}|$; and in fact changing the probability distribution of $\partial u/\partial x$ makes little difference to the comparison between the numerical simulations of particle motion carried out by Balachandar & Maxey and the Saffman–Turner theoretical predictions.