

# ERRATUM

## Large particle segregation, transport and accumulation in granular free-surface flows – ERRATUM

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The Publishers apologise to the authors and readers for the following errors which occurred in Gray & Kokelaar (2010).

(a) ON P. 116 THE JUMP BRACKETS ARE MISSING:

... At such discontinuities  $\eta$  satisfies the jump condition (see e.g. Chadwick 1976; Gray, Shearer & Thornton 2006, for a general derivation)

$$\llbracket \eta(\bar{u} - v_n) \rrbracket = \llbracket (1 - \alpha)\bar{u}\eta \left(1 - \frac{\eta}{h}\right) \rrbracket, \quad (3.8)$$

where  $v_n$  is the normal speed of the shock and the jump bracket  $\llbracket f \rrbracket = f_2 - f_1$  is the difference of the enclosed quantity on the forward and rearward sides of the shock (denoted by the subscripts 2 and 1, respectively).

(b) ON P. 126 ALSO THE JUMP BRACKETS ARE MISSING:

... These can be summarized by the relations

$$\llbracket h(\bar{u} - v_n) \rrbracket = 0, \quad (4.25)$$

$$\llbracket h\bar{u}(\bar{u} - v_n) \rrbracket + \llbracket \frac{1}{2}h^2\varepsilon \cos \zeta \rrbracket = 0, \quad (4.26)$$

$$\llbracket \eta(\bar{u} - v_n) \rrbracket - \llbracket (1 - \alpha)\bar{u}\eta(1 - \eta/h) \rrbracket = 0, \quad (4.27)$$

where the velocity magnitude is assumed to scale as  $U = \sqrt{gL}$ .

### REFERENCES

- CHADWICK, P. 1976 *Continuum Mechanics. Concise Theory and Problems*, 187 pp. George Allen & Unwin (republished Dover 1999).
- GRAY, J. M. N. T. & KOKELAAR, B. P. 2010 Large particle segregation, transport and accumulation in granular free-surface flows. *J. Fluid Mech.* **652**, 105–137.
- GRAY, J. M. N. T., SHEARER, M. & THORNTON, A. R. 2006 Time-dependent solutions for particle-size segregation in shallow granular avalanches. *Proc. R. Soc. A* **462**, 947–972.