

Correction to “The physical basis for anomalous diffusion in bed load transport”

Raleigh L. Martin, Douglas J. Jerolmack, and Rina Schumer

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[1] In the paper “The physical basis for anomalous diffusion in bed load transport” by Raleigh L. Martin et al. (*Journal of Geophysical Research*, 117, F01018, doi:10.1029/2011JF002075, 2012) paragraph 5 should read as follows. *Nikora et al.* [2002] suggested that the character of anomalous sediment diffusion may change with time scale. In their conceptual model, superdiffusion at short time scales (“local regime”) resulted from correlated particle motions arising from particle inertia, and subdiffusion at long time scales (“global regime”) resulted from periods of particle immobility (wait times) with a heavy tail. (In contrast, *Bradley et al.* [2010] observed superdiffusion in the global regime.) Over

medium time scales (“intermediate regime”), *Nikora et al.* [2002] also observed superdiffusion, but suggested that the type of diffusion in this regime may depend on system properties.

References

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- Nikora, V., H. Habersack, T. Huber, and I. McEwan (2002), On bed particle diffusion in gravel bed flows under weak bed load transport, *Water Resour. Res.*, 38(6), 1081, doi:10.1029/2001WR000513.