

Editorial: Hydrology: advances in theory and practice

The British Hydrological Society (BHS) has a long tradition of scholarly meetings – the *First National Hydrology Symposium* was held at Hull University in September 1987. This Special Issue collates papers presented at the *Thirteenth National Hydrology Symposium* held on 12–13 September 2018 at the University of Westminster, London. In addition to these 13 national symposia, the Society convenes an International Conference every 6 years – the most recent of which was the *Fourth BHS International Conference* held at Cranfield University (30 August–1 September 2016) (see *Hydrology Research* 49(2)).


The theme for the 2018 conference was *Hydrology: Advances in Theory and Practice*, a fitting title given that the membership of the Society is approximately 50% academic and 50% practitioners, and contributions to both the theory and practice of hydrology are evident in this Special Issue. Flood estimation methods usually feature prominently at BHS meetings, and on this occasion we have contributions to methodologies for extreme value estimation (Hammond 2019), and improvements to an important catchment descriptor (Griffin *et al.* 2019). The value of distributed hydrological modelling for decision making is highlighted (Ocio *et al.* 2019) and recent advances in efficient coupling of hillslope hydrology and hydraulics for natural flood management are reported (Hankin *et al.* 2019). West *et al.* (2019) highlight the importance of the North Atlantic Oscillation (NAO) in influencing the spatial distribution of monthly precipitation in the UK and Muchan & Dixon (2019) present important empirical work on raingauge undercatch. We were pleased to receive papers focussing on the hydrology of other regions too: Hudson & Thompson (2019) on modelling climate change impacts in Siberia's Lena River basin and Magliano *et al.* (2019) on the hydrological functioning of cattle ranching impoundments in Argentina.

Special mention must be made of the two papers in this issue which were also invited keynote presentations. Wilby (2019) presents a thought-provoking outlook on a global hydrology research agenda fit for the 2030s, and Beven (2019) is an equally challenging and insightful piece on how to make advances in hydrological modelling – based

on almost 50 years of modelling experience. The British Hydrological Society is very grateful to IWA Publishing for waiving Open Access fees for these two excellent papers, thereby ensuring that they attract a global readership.

The symposium was also held in honour of Professor Geoff Petts (1953–2018), who as Past President of BHS (2015–2017) and convener of this symposium, had undertaken considerable planning for it before his illness and subsequent death in August 2018.

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REFERENCES

- Beven, K. 2019 How to make advances in hydrological modelling. *Hydrology Research* 50 (6), 1481–1494.
- Griffin, A., Young, A. & Stewart, L. 2019 Revising the BFIHOST catchment descriptor to improve UK flood frequency estimates. *Hydrology Research* 50 (6), 1508–1519.
- Hammond, A. 2019 Proposal of the ‘extreme rank plot’ for extreme value analysis: with an emphasis on flood frequency studies. *Hydrology Research* 50 (6), 1495–1507.
- Hankin, B., Metcalfe, P., Beven, K. & Chappell, N. A. 2019 Integration of hillslope hydrology and 2D hydraulic modelling for natural flood management. *Hydrology Research* 50 (6), 1535–1548.
- Hudson, C. E. & Thompson, J. R. 2019 Hydrological modelling of climate change impacts on river flows in Siberia's Lena River Basin and implications for the Atlantic Meridional Overturning Circulation. *Hydrology Research* 50 (6), 1577–1595.
- Magliano, P. N., Mindham, D., Tych, W., Murray, F., Noretto, M. D., Jobbágy, E. G., Niborski, M. J., Rufino, M. C. & Chappell, N. A. 2019 Hydrological functioning of cattle ranching impoundments in the Dry Chaco rangelands of Argentina. *Hydrology Research* 50 (6), 1596–1608.
- Muchan, K. & Dixon, H. 2019 Insights into rainfall undercatch for differing raingauge rim heights. *Hydrology Research* 50 (6), 1564–1576.
- Ocio, D., Beskeen, T. & Smart, K. 2019 Fully distributed hydrological modelling for catchment-wide hydrological data verification. *Hydrology Research* 50 (6), 1520–1534.
- West, H., Quinn, N. & Horswell, M. 2019 Regional rainfall response to the North Atlantic Oscillation (NAO) across Great Britain. *Hydrology Research* 50 (6), 1549–1563.
- Wilby, R. L. 2019 A global hydrology research agenda fit for the 2030s. *Hydrology Research* 50 (6), 1464–1480.