

Results of the STAHY Best Paper Award 2017

The STAHY Best Paper Award 2017 is assigned to:

- Linyin Cheng, NOAA Earth System Research Laboratory, Boulder, USA
- Amir Aghakouchak, University of California, Irvine, USA



Linyin Cheng and Amir Aghakouchak

for the paper:

Cheng, L., Aghakouchak, A. Nonstationary precipitation intensity-duration-frequency curves for infrastructure design in a changing climate (2014) *Scientific Reports*, 4, art. no. 7093.

The STAHY Best Paper Award 2017 will be assigned during the STAHY'17 Conference - Warsaw, 21-22 September 2017.

The STAHY Best Paper 2017 is the result of evaluation of the following 21 papers (one ex-equo), selected among the papers (published in 2013-2014-2015) present in ICSH website and ordered by citations (SCOPUS database, excluding self citations):

1. Westra, S., Alexander, L.V., Zwiers, F.W. Global increasing trends in annual maximum daily precipitation (2013) *Journal of Climate*, 26 (11), pp. 3904-3918. Cited 122 times.
2. Hao, Z., Aghakouchak, A. Multivariate Standardized Drought Index: A parametric multi-index model (2013) *Advances in Water Resources*, 57, pp. 12-18. Cited 87 times. Cited 73 times
3. *Salas, J.D., Obeysekera, J. Revisiting the concepts of return period and risk for nonstationary hydrologic extreme events (2014) *Journal of Hydrologic Engineering*, 19 (3), pp. 554-568. Cited 69 times.
4. *Graler, B., Van Den Berg, M.J., Vandenberghe, S., Petroselli, A., Grimaldi, S., De Baets, B., Verhoest, N.E.C. Multivariate return periods in hydrology: A critical and practical review focusing on synthetic design hydrograph estimation (2013) *Hydrology and Earth System Sciences*, 17 (4), pp. 1281-1296. Cited 59 times
5. Sonali, P., Nagesh Kumar, D. Review of trend detection methods and their application to detect temperature changes in India (2013) *Journal of Hydrology*, 476, pp. 212-227. Cited 58 times.
6. Jongman, B., Hochrainer-Stigler, S., Feyen, L., Aerts, J.C.J.H., Mechler, R., Botzen, W.J.W., Bouwer, L.M., Pflug, G., Rojas, R., Ward, P.J. Increasing stress on disaster-risk finance due to large floods (2014) *Nature Climate Change*, 4 (4), pp. 264-268. Cited 54 times.

7. AghaKouchak, A., Cheng, L., Mazdidasni, O., Farahmand, A. Global warming and changes in risk of concurrent climate extremes: Insights from the 2014 California drought (2014) *Geophysical Research Letters*, 41 (24), pp. 8847-8852. Cited 49 times.
8. Hao, Z., Aghakouchak, A. A nonparametric multivariate multi-index drought monitoring framework (2014) *Journal of Hydrometeorology*, 15 (1), pp. 89-101. Cited 46 times.
9. Kisi, O., Shiri, J., Tombul, M. Modeling rainfall-runoff process using soft computing techniques (2013) *Computers and Geosciences*, 51, pp. 108-117. Cited 38 times.
10. *Ishak, E.H., Rahman, A., Westra, S., Sharma, A., Kuczera, G. Evaluating the non-stationarity of australian annual maximum flood (2013) *Journal of Hydrology*, 494, pp. 134-145. Cited 33 times.
11. Karthikeyan, L., Nagesh Kumar, D. Predictability of nonstationary time series using wavelet and EMD based ARMA models (2013) *Journal of Hydrology*, 502, pp. 103-119. Cited 32 times.
12. Cheng, L., AghaKouchak, A., Gilleland, E., Katz, R.W. Non-stationary extreme value analysis in a changing climate (2014) *Climatic Change*, 127 (2), pp. 353-369. Cited 30 times
13. Madadgar, S., Moradkhani, H. Drought analysis under climate change using copula (2013) *Journal of Hydrologic Engineering*, 18 (7), pp. 746-759. Cited 30 times.
14. Hannaford, J., Buys, G., Stahl, K., Tallaksen, L.M. The influence of decadal-scale variability on trends in long European streamflow records (2013) *Hydrology and Earth System Sciences*, 17 (7), pp. 2717-2733. Cited 30 times.
15. Rougé, C., Ge, Y., Cai, X. Detecting gradual and abrupt changes in hydrological records (2013) *Advances in Water Resources*, 53, pp. 33-44. Cited 29 times.
16. Corbella, S., Stretch, D.D. Simulating a multivariate sea storm using Archimedean copulas (2013) *Coastal Engineering*, 76, pp. 68-78. Cited 29 times.
17. Cheng, L., Aghakouchak, A. Nonstationary precipitation intensity-duration-frequency curves for infrastructure design in a changing climate (2014) *Scientific Reports*, 4, art. no. 7093. Cited 26 times
18. Chiew, F.H.S., Potter, N.J., Vaze, J., Petheram, C., Zhang, L., Teng, J., Post, D.A. Observed hydrologic non-stationarity in far south-eastern Australia: Implications for modelling and prediction (2014) *Stochastic Environmental Research and Risk Assessment*, 28 (1), pp. 3-15. Cited 25 times.
19. Chen, X.Y., Chau, K.W., Busari, A.O. A comparative study of population-based optimization algorithms for downstream river flow forecasting by a hybrid neural network model (2015) *Engineering Applications of Artificial Intelligence*, 46, pp. 258-268. Cited 25 times.
20. Koutsoyiannis, D. Hydrology and change (2013) *Hydrological Sciences Journal*, 58 (6), pp. 1177-1197. Cited 24 times.
21. Tabari, H., Aghajanloo, M.-B. Temporal pattern of aridity index in Iran with considering precipitation and evapotranspiration trends (2013) *International Journal of Climatology*, 33 (2), pp. 396-409. Cited 24 times.

* This paper is excluded from the evaluation procedure since one of the authors is part of the Award Committee or since the paper was the winner of previous editions of the award.