

Citation for the 2014 Tison Award
by Demetris Koutsoyiannis,
IAHS co-Editor and Chairman of the Jury of the 2014 Tison Award

Dear colleagues and friends, ladies and gentlemen,

The Tison Award honours an outstanding paper of one or more young scientists, published in any of the IAHS publications and is now co-sponsored by Taylor & Francis, the publisher of *Hydrological Sciences Journal*. It was bestowed for first time 27 years ago, in 1987 in Vancouver, Canada, and the first recipient was Zbyszek Kundzewicz, now co-Editor of *Hydrological Sciences Journal* and IAHS. Since then up to 2013, the award has been bestowed 22 times on 37 young scientists from several countries belonging to all continents. Most of the laureates are now renowned hydrologists. One of them, the 2007 laureate, Christophe Cudennec, is now our Secretary General.

This year there was a strong competition, perhaps the strongest ever, as 16 papers were candidate for the award. The Jury, which I had the honour to chair, decided that the award goes to the paper “European precipitation connections with large-scale mean sea-level pressure (MSLP) fields” by David Lavers, Christel Prudhomme and David M. Hannah, published in the *Hydrological Sciences Journal*. Two of the authors are young scientists (under 41 years of age) eligible for the award: David Lavers and David Hannah. Perhaps if the review process were faster, the second author, Christel Prudhomme, would also be eligible age-wise but eventually she is not.

Both award winners are British scientists whose research focuses on hydrometeorology and hydroclimatology. David Lavers is a visiting scientist in the European Centre for Medium-Range Weather Forecasts in Reading, and has earlier worked as postdoctoral researcher in the University of Iowa in the USA and in the University of Reading in the UK. David Hannah is professor of hydrology in the University of Birmingham. He is also the Head of the School of Geography, Earth & Environmental Sciences at the University of Birmingham. Despite his young age, he is already a renowned scientist with an impressive publication record recognized internationally.

The awarded paper investigates the spatiotemporal variability in gridded European precipitation and large-scale mean sea-level pressure, and identifies spatial relationships between rainfall and pressure patterns. For first time, gridded rainfall and atmospheric pressure data were used to identify the detailed correlation structure between pressure and rainfall fields at a pan-European scale. By comparing the use of gridded data with that of indices, like the North Atlantic Oscillation Index, the study demonstrates the superiority of the former which yield stronger statistical relationships because the analysis of gridded data can capture the dynamic seasonal movement of the atmospheric areas with strongest control on European precipitation.

Prominent elements of the study are the huge gridded data sets it uses, the sound statistical methodologies it develops, which are suited to the big data sets and, consequently, the big extent and detail of the results presented. As the authors say, they had difficulties to present their results in figures, because they “cannot be reproduced in a larger format given the journal page layout”. Indeed, a more decent presentation would require large maps of the entire Europe, most of the Africa and the Atlantic Ocean.

The paper concludes with the following words: “The identified hydroclimatological relationships could be used to evaluate climate model output to determine if the location, strength and timing of these hydroclimatological connections can be reproduced accurately by models. If climate models become capable of reproducing these hydroclimatological correlation patterns at extended forecast lead times, scientific and societal benefits could result.”

By quoting these statements I wish to encourage the authors, as well as other colleagues dealing with similar research, to consider performing such studies and I invite them to submit their papers to *Hydrological Sciences Journal*.

Furthermore, I wish to add that the “if” clause in the above quotation may not be necessary. Scientific and societal benefits could result even if climate models are incapable of reproducing the patterns. Science is the pursuit of the truth, and the communication of the truth is beneficial to the society whatever the truth is. In general, negative results are not to be glorified, but sometimes can be equally important and useful with positive ones, and sometimes even more important, when they falsify established theories or models. Therefore, my invitation stands for any type of sound scientific results for the follow-up of this important research.

In closing, I congratulate the authors and I wish them further scientific successes hoping that the Tison Award received from the International Association of Hydrological Sciences will help them achieve new heights in their careers.