

## International Hydrology Prize—Dooge Medal 2014

### Response by Demetris Koutsoyiannis

Dear colleagues, friends, ladies and gentlemen,

It is an ineffable joy and honour for me to receive this award from IAHS, UNESCO and WMO, today, in front of this esteemed audience. The colleagues listed as past winners of the International Hydrology Prize are among those who wrote the history of modern hydrology and this shows how prestigious the award is. As mentioned by Hubert, it happens that I am the first recipient of the Dooge medal. The award ceremony is held in Dublin Castle in the context of a conference about the seminal roles in Hydrology of **Jim Dooge** and **Eamon Nash**, who were among the first winners of the International Hydrology Prize. With all this in mind, my feelings of delight and pride turn into apprehension and fear that I may not deserve this distinction.

I guess some of you may have similar doubts or questions. At this point I wish to thank Hubert who has, in a way, tried to address these questions. In his flattering statements about me, he has exaggerated, which is excusable in award ceremonies. I will follow a different approach, perhaps inspired by a talk by Hubert in a similar situation: “the art of hydrology”.

In this respect, I want to show you the refrain of a Greek song; I was 15 when it appeared in 1970 and I loved it:

	<p>Σαν της λίμνης τα νερά Που όπου να 'ν' τα πάει τ' αγέρι Όλα είναι τυχερά Μα η καρδιά σου δεν το ξέρει</p>	
	<p><i>(Ξέχασέ με και προχώρα, Στίχοι: Σώτια Τσώτου, Μουσική: Κώστας Χατζής)</i></p>	
	<p>Like the waters of a lake Which the wind moves here and there All happens by chance But your heart doesn't know it</p>	
	<p><i>(Forget me and move on; lyrics: Sotia Tsotou, music: Costas Hatzis)</i></p>	
	<p>Comme les eaux d'un lac Que le vent meut çà et là Tout se passe par hasard Mais ton cœur ne le sait pas</p>	
	<p><i>(Oublie moi et avance ; Paroles: Sotia Sotou, Musique: Costas Hatzis)</i></p>	

As you understand, I still like this song for several reasons. First, it is related to hydrology and hydrometeorology, as it speaks about a lake, its waters and their motion induced by the wind. Second, it says a big truth about the dominance of randomness both in nature and in life. And third, it reveals an important secret: that knowledge is not only a matter of our mind, as we tend to believe, but also a matter of our heart. Indeed, it is difficult to be open-minded if we are not open-hearted.

The song provides all explanations and answers to questions related to my involvement in this ceremony today, and guides me to speak from my heart in a framework of randomness. I will briefly describe how my random walk on water, the main constituent of my professional life, interacted with people in the hydrological community.

In other words, I will speak about my personal socio-hydrology; I guess, socio-hydrology is much more pertinent for ceremonies and therefore I will not speak about scientific principles or engineering aspects of hydrology. To make the story short, I will skip about 30 years from the date the song was written, except mentioning my gratitude to my teacher of hydraulics, the late **Giorgos Noutsopoulos**, and my mentor in hydrology and hydrosystems, **Themis Xanthopoulos**.

In April 1999 I had a presentation in the “Open session on statistical methods in Hydrology” in the EGS Assembly in Den Haag, where I met **Alberto Montanari**, convener of the session. After my talk, he asked me a question, to which I replied hastily. After thinking more about this question, I was able to generalize and then answer it in a paper, “A generalized mathematical framework for stochastic simulation and forecast of hydrologic time series” published in 2000. In this paper I came across what I later called *Hurst-Kolmogorov stochastic dynamics*.

In the same year, 2000, I was appointed Associate Editor to the *Journal of Hydrology*. I also submitted to this journal a paper on the Hurst phenomenon, which was rejected outright. Meanwhile, I had prepared another paper on the relationship of Hurst-Kolmogorov dynamics with climate, which I submitted to *Water Resources Research*. It too was rejected outright.

These two consecutive rejections were not the happiest moments of my life, but proved to be among the luckiest—and not only because the two rejected papers were later published and have been my top cited ones. I submitted both rejected papers, one after the other, to *Hydrological Sciences Journal*. Thus my path crossed with that of its Editor, **Zbyszek Kundzewicz**, who is not only talented in pinpointing innovative papers, but also a rare personality, making collaboration with him a real joy. He invited me to become Associate Editor of *HSJ* in 2003, his Deputy Editor in 2006 and Co-Editor in 2009. Our collaboration in *HSJ* has been full of agreements with only one disagreement: on climate issues. But his behaviour in disagreement made me admire him more.

Soon after their publication, these papers had the good fortune to be read by **Tim Cohn** and **Harry Lins**, who cited them in their seminal 2005 paper, “Naturally trendy”, in *Geophysical Research Letters*. I happened to have been invited to review their paper. Thus, I got to know them and their work and discovered that we share similar interests and views. I owe them a lot and I thank them for their collaboration and friendship. The intense discussions that broke out after the publication of their paper brought me into contact with many people in the climate community and the blogosphere.

On the other hand, it was **Zbyszek Kundzewicz** the person who brought me into contact with IAHS and its sensible and sensitive people. It was very fortunate for me to become a member of this big, worldwide family. The feeling of belonging to it counts much more than scientific achievements. I had the good fortune to serve it under the presidencies of **Arthur Askew**, **Gordon Young** and now **Hubert Savenije**. I thank them for their trust and friendship. For the same reasons I thank the former and current Secretaries-General, **Pierre Hubert** and **Christophe Cudennec**.

Within the IAHS family, I met many historical figures in hydrology as well as active officers of IAHS and I am grateful to many of them. I wish to name one, **Vít Klemeš**, former president of IAHS, former winner of the International Hydrology Prize, former Czechoslovakian, former Canadian and since 2010 permanent resident of Cloud No. 17, as he used to call his last resting place. His attitude, his writings and talks, and our intense discussions, which started in a conference in Monte Verità in 2003 and included a “Socratic dialogue”, as he called it, in Greece in 2005, will continue to be an inspiration for me.

Actually, it was one of the two rejected papers which triggered all this rich exchange with Vít, but I now have to stop the story of the two lucky rejections, even though my relationship with rejections continues to be fruitful; for example, last year I was able to receive, for a single paper, eight rejections by eight different journals and eventually publish that paper. I hope the young colleagues could find the story encouraging as it shows that very good things can come from rejections. It also shows that good rejected papers may have a good fortune in *Hydrological Sciences Journal*.

I would also like to mention a tangential contact of my random path with **Jim Dooge** himself, just 10 years ago, in 2004. He was in the audience of a talk that I gave in EGU in Nice entitled “*Simple methods to generate time series with scaling behaviour*”. In the coffee break after the talk he approached me to say that he was attracted by my title because during all his life he has been *searching for simplicity in hydrology*.

Naturally, meeting people in a random walk is characterized by persistence and clustering, whether these refer to meeting groups of like-minded people, or of the very same people many times. I wish thus to thank **Alberto Montanari** for his long-term persistent friendship, which was forged, among other things, by a double rejection of our first joint paper. I also thank him for leading my nomination for this award—without telling me anything. Furthermore, I thank the National IAHS Committees and their National Representatives for supporting my nomination:



I am really touched for their support and I am also honoured that my predecessor in IHP, Günter, my Co-Editor, Zbyszek, and my compatriot, George, contributed to my nomination.

Finally, I want to acknowledge the long term persistence of the *Itiá* Research Team in the National Technical University of Athens. It has shown that it can perform even without financial resources during a deep economic crisis in Greece. I am really lucky to be a member of this group. Our secret is in the nice and dedicated people, the friendship-based relationships, the diversity and debate of opinions, and the replacement of a pyramid-type academic structure with a flourishing willow tree characterized by dynamic alternation of the roles of teacher and student.

In closing, I wish to thank you, Hubert, for your citation, as well as the members of the award committee that you chaired, **Denis Hughes**, **Blanca Jimenez-Cisneros** and **Bruce Stewart**, along with their parent organizations, IAHS, UNESCO and WMO.

I thank you all for being here this afternoon with me. Please allow me to address to a special participant of this ceremony, my dear wife **Anna**, a great thanks for our persistent relationship of love, honesty and modesty, and for our intellectual coevolution.

Dublin, Ireland, 24 April 2014