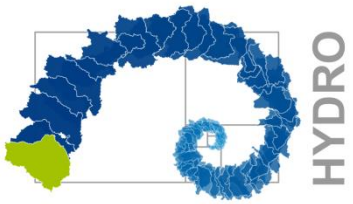
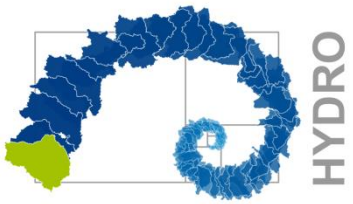
Opinion papers

Vazken ANDRÉASSIAN



Are opinion papers really useful?

Vazken ANDRÉASSIAN



In lieu of introduction

- **We all remember wonderful opinion papers that transformed our vision of hydrology**

- **And we tend to forget all the pretentious opinion papers that we did not even finish reading…**

The force of one’s opinions (Münchhausenian perspective)

My opinion about opinion's paper

- **An opinion paper must be even more readable than a normal paper**
- **An opinion paper must be short: a long OP is a treaty… not a paper**
- **An opinion paper must not be 'smooth': weak consensuses do not move the science forward**
- **An opinion paper should not be written in haste, it needs a maturation time.**

My opinion about opinion's paper

- **Opinion papers are like salt… we need a little bit of them, but not too much**
- **Overall, we need more facts than opinions…**
- **We should perhaps add opinions**

INVITED COMMENTARY

HP TODAY

HYDROLOGICAL PROCESSES
Hydrol. Process. **21**, 2819–2822 (2007)
Published online 28 August 2007 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/hyp.6854

What is really undermining hydrologic science today?

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In a commentary published in *Hydrological Processes*, Beven (2006) revealed that he had been accused by some members of the hydrological community of *undermining* the reputation of hydrologic science among model end-users. One of the reasons for this accusation was that the generalized likelihood uncertainty estimation (GLUE) methodology—which he introduced in 1992, and which has since received much attention—is considered by some of our colleagues to provide overestimated error bounds for streamflow simulations. Since he called on the hydrologic community to contribute to the debate concerning the reasonable or unreasonable character of this charge, we would like to contribute our viewpoint on the following two questions:

1. **does the GLUE methodology overestimate the uncertainty of model simulations?**
2. **what is in fact *undermining* hydrologic science?**

Several colleagues have already contributed to this debate and discussed Beven's commentary. Their contributions have mainly been theoretical in nature and have focused in great detail on uncertainty assessment methods. We will not enter this part of the debate: since the question was on the diminishing reputation of hydrologists among *end-users*, we will approach the question strictly from the point of view of the *end-user*, a professional needing to solve a practical problem,

Hydrol. Earth Syst. Sci., 13, 1757–1764, 2009
www.hydrol-earth-syst-sci.net/13/1757/2009/

Hydrology and Earth System Sciences

HESS Opinions

"Crash tests for a standardized evaluation of hydrological models"

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Received: 7 April 2009 – Published in Hydrol. Earth Syst. Sci. Discuss.: 4 May 2009
Revised: 31 August 2009 – Accepted: 2 September 2009 – Published: 1 October 2009

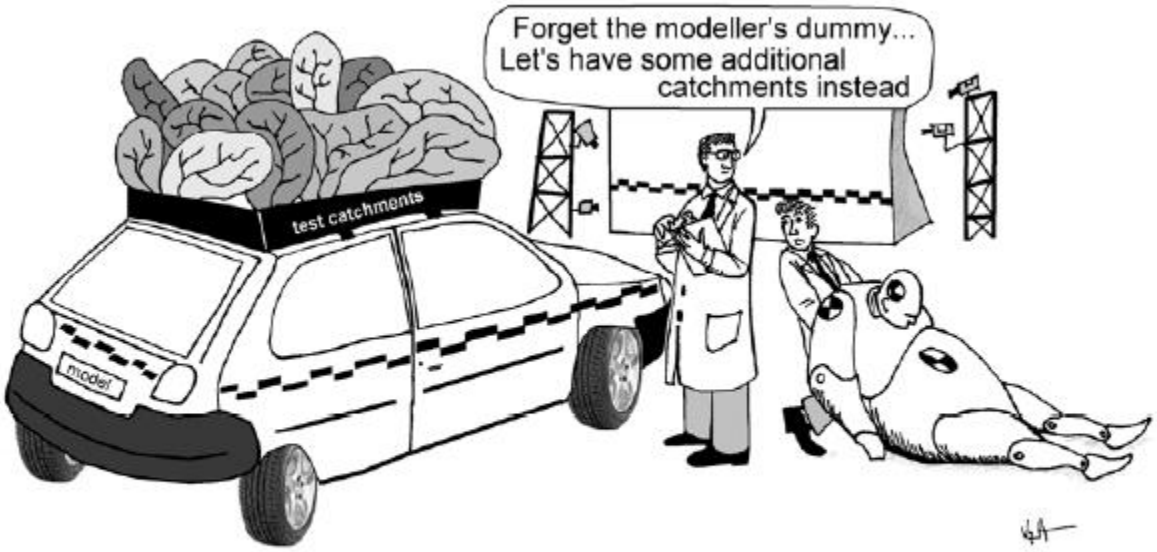

Fig. 2. Crash testing a rainfall-runoff model.

Hydrological Sciences Journal – Journal des Sciences Hydrologiques, **55**(6) 2010
Special issue: *The Court of Miracles of Hydrology*

EDITORIAL

The Court of Miracles of Hydrology: can failure stories contribute to hydrological science?

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Citation Andréassian, V., Perrin, C., Parent, E. & Bárdossy, A. (2010) Editorial – The Court of Miracles of Hydrology: can failure stories contribute to hydrological science? *Hydrol. Sci. J.* **55**(6), 849–856.

HYDROLOGICAL PROCESSES
Hydrol. Process. 23, 651–654 (2009)
Published online 30 December 2008 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/hyp.7217

INVITED COMMENTARY

HP TODAY

The hunting of the hydrological snark

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Received 31 October 2008
Accepted 31 October 2008

Introduction

This paper investigates the possible links between hydrological science and Lewis Carroll's famous poem, *The hunting of the Snark* (1876), describing the hunt for a hypothetical, unknown and unseen monster—the *snark*. We propose a prose analogue to Carroll's poem, where we investigate a possible strategy for hunting this hydrological monster lurking in the shadows, yet familiar to every hydrologist.

This paper first outlines the basic rules for a hydrological snark hunt. Then the types of models that could help locate the snark will be discussed and, finally, miscellaneous technical issues related to snark hunting in a hydrological context will be addressed (Figure 1).

What Type of Research Team is Required to Hunt the Hydrological Snark?

Before starting any research project, a true researcher will first investigate the possibilities for publication: where can the eventual outcome of this engrossing hunt get published? One thing is certain: we wish to maximize the cumulative impact factor of the hunt. Therefore, it is more than appropriate to choose a multidisciplinary team, with at least

- a geographer
- two statisticians: a *frequentist* and a *Bayesian*
- an agricultural engineer
- a civil engineer
- a beaver (*Lewis Carroll had one too*)
- a geologist
- a remote-sensing specialist
- many PhD students

Although it is a now common practice to include so-called *end-users*, or *stakeholders*, in any research project, we will be careful not to do so. Indeed, some of our colleagues have been annoyed in the past by end-users who dared express personal opinions (or worse, who were critical of the research project's objectives).

To ensure the productivity of the hunting party, each researcher will receive a share of a PhD student, because it is well known that without a PhD student, a senior researcher is helpless. Each share will be proportional to the length of each researcher's publication list, or alternatively to his or her weight.

To promote cross-fertilization in this multidisciplinary team, each researcher will be allocated a PhD student from a different area of expertise (i.e. the civil engineer will get a geographer as a PhD student, etc.). Although it would be extremely instructive to place a frequentist PhD student with a Bayesian senior researcher, we first need to check that this is allowed by the Geneva Convention.