Presenting research workshop

Steven Weijs, Civil Engineering, UBC, Vancouver

Outline

- Introduction to workshop and me/my research
- Objectives of presenting research
- How to achieve your objective

Workshop form

- (Inter) active, will collect input from you
- We will try to compile a useful document (on Google docs) with our joint knowledge.
- Some work will be in small groups, best to have at least one laptop in each group.

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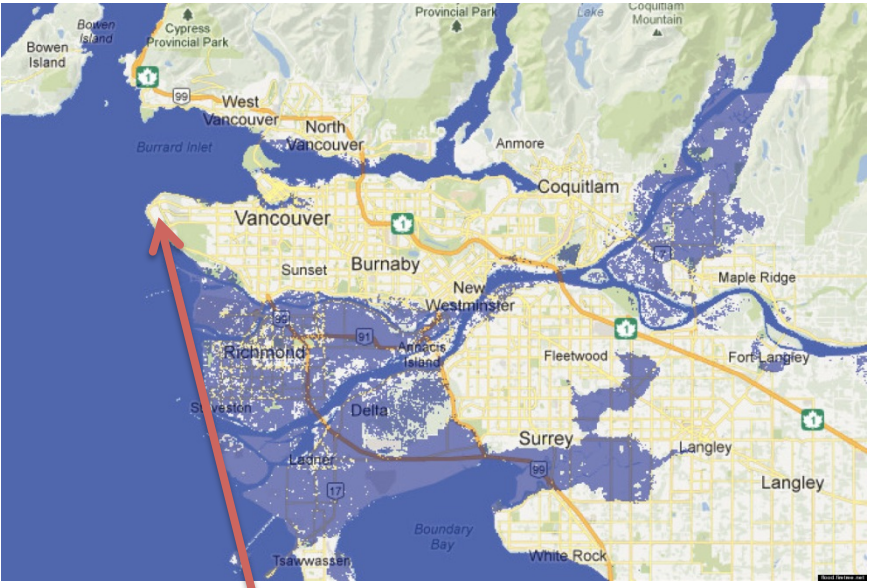
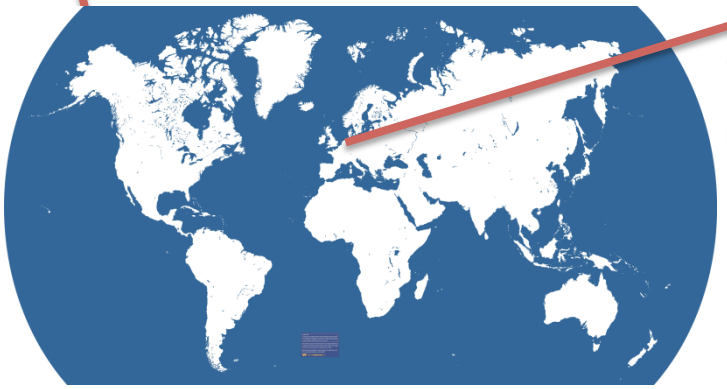
About me: I am a lowland guy

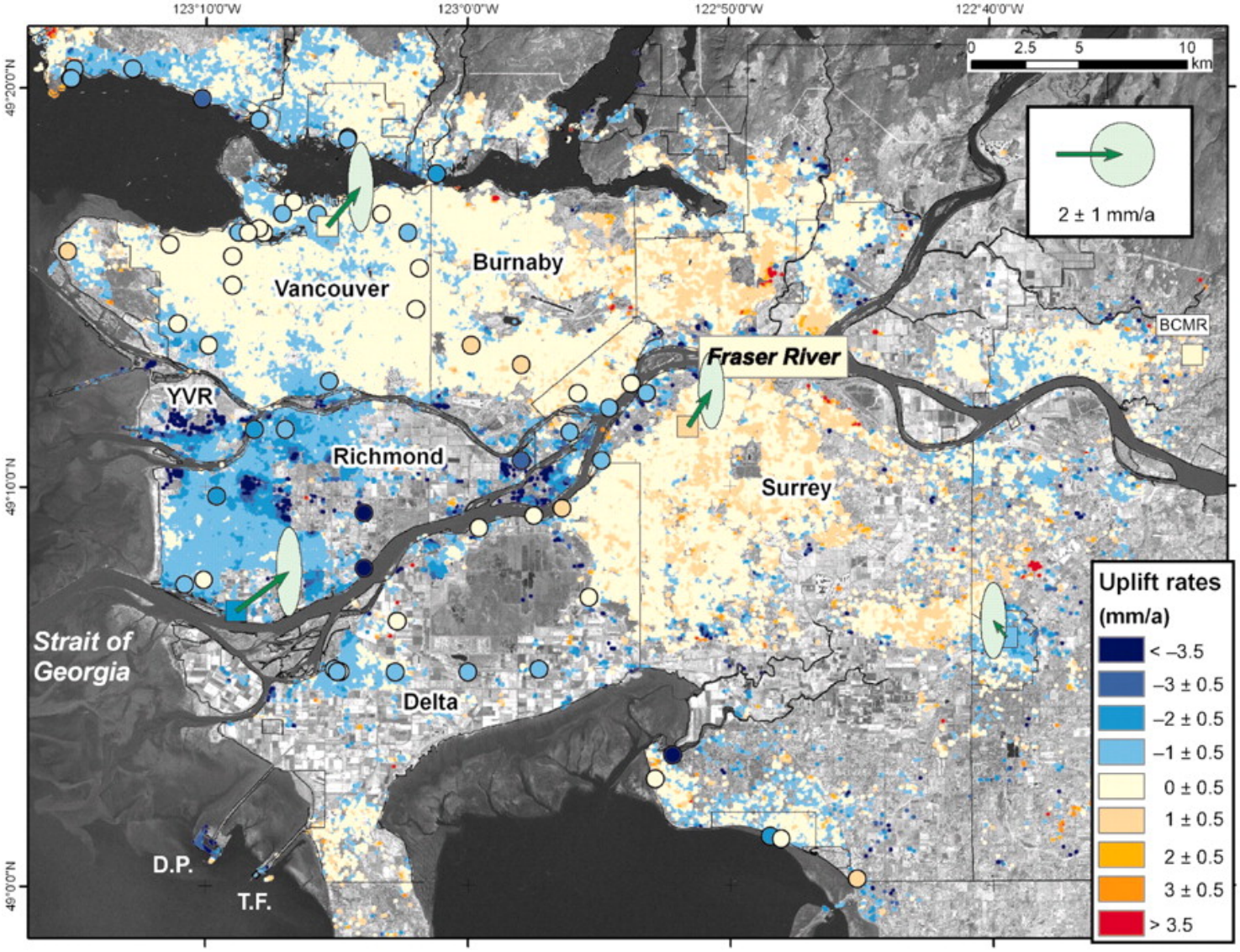




TU Delft
Delft University of Technology

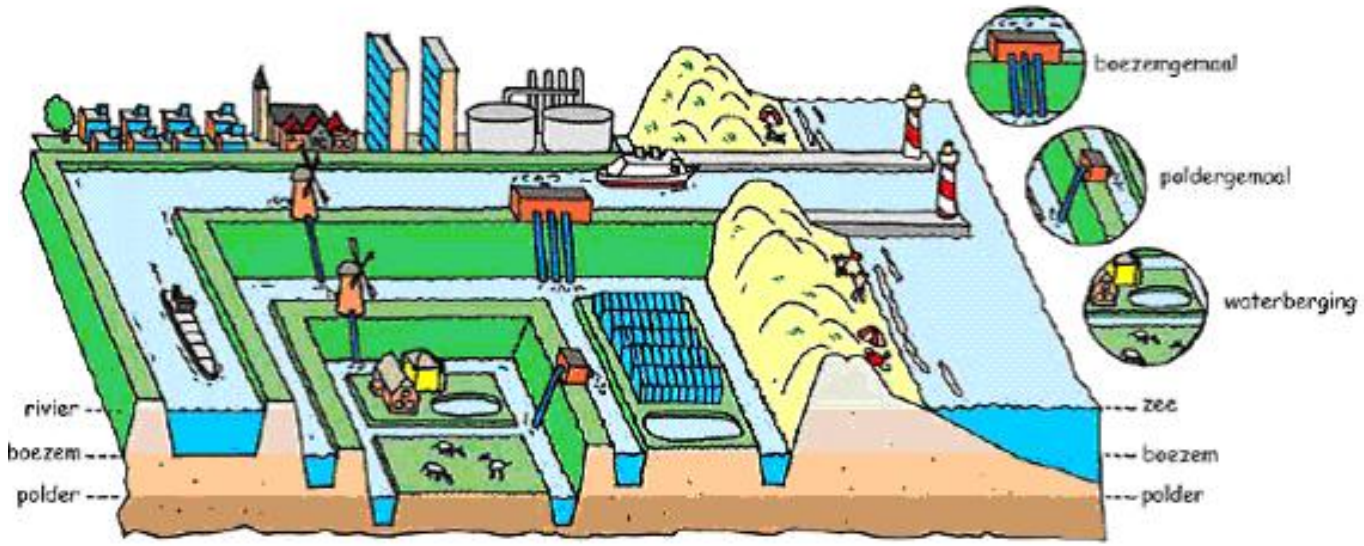
1 m below sea level

Subsidence + Sea level rise

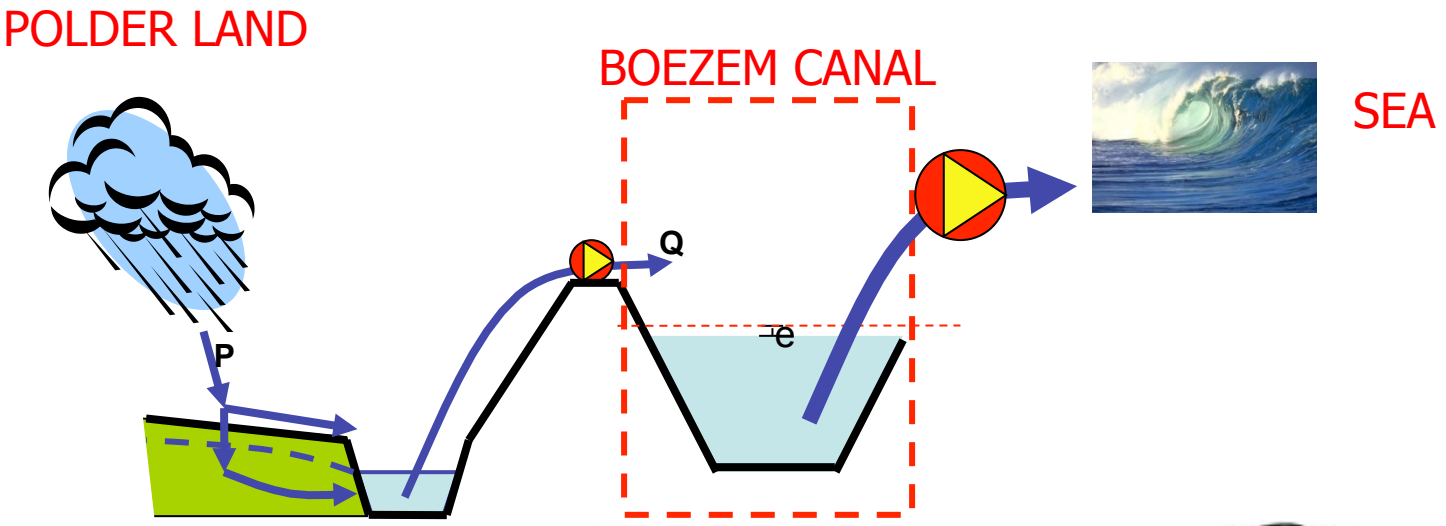


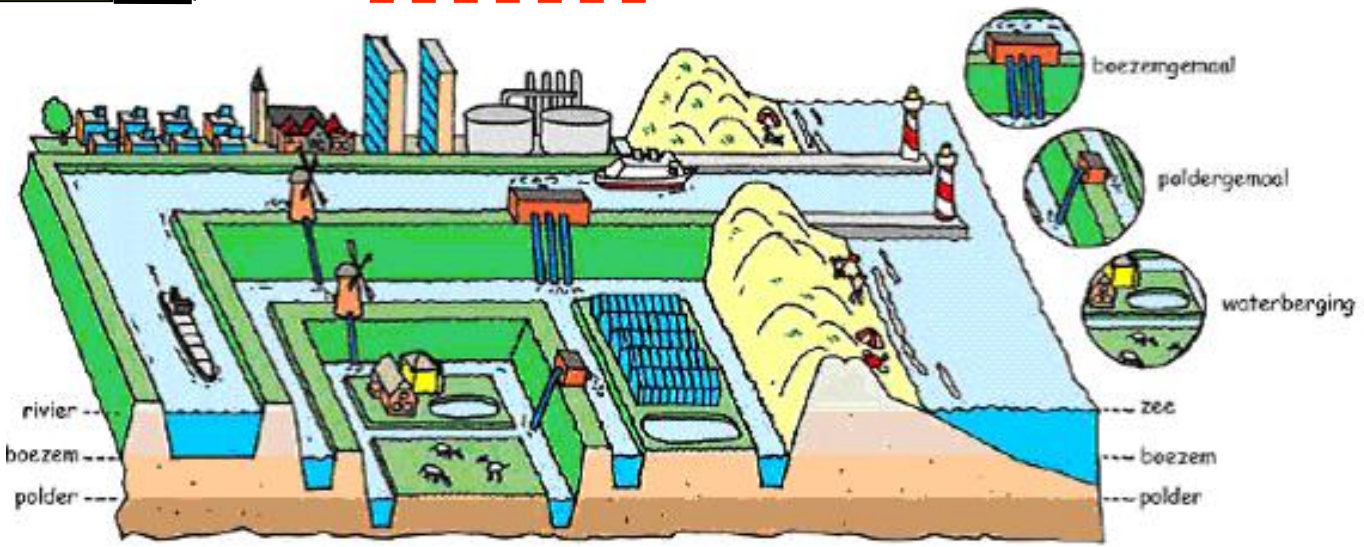
Mazzotti S et al. Geology 2009;37:771-774

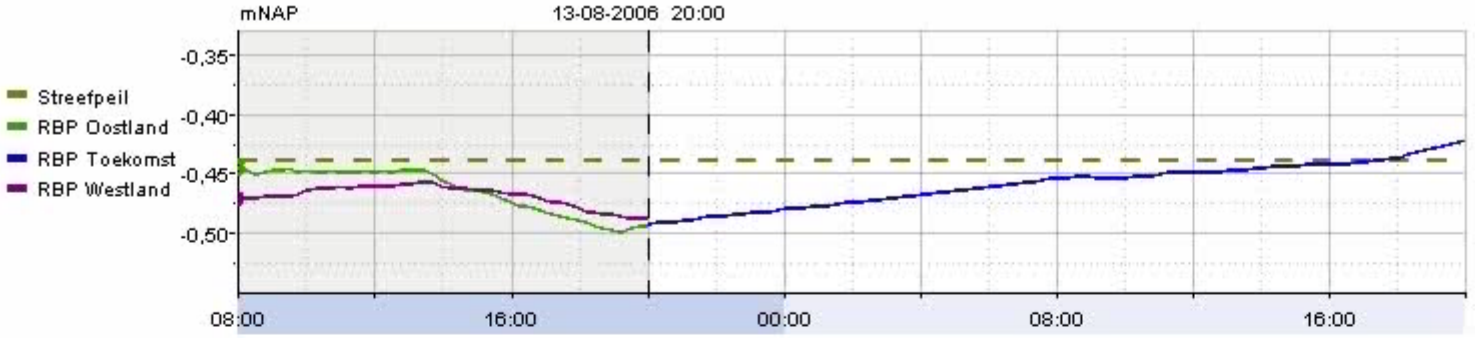
Solution 1: Fix problems

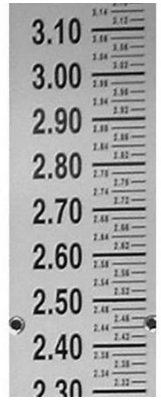


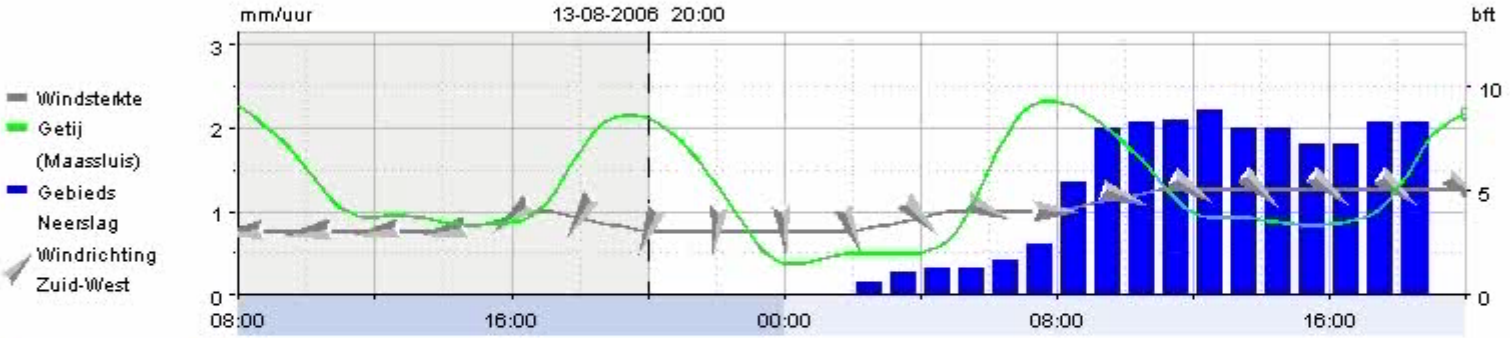
Controlling water systems

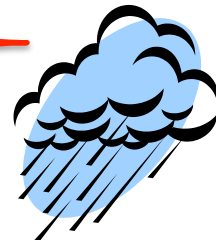


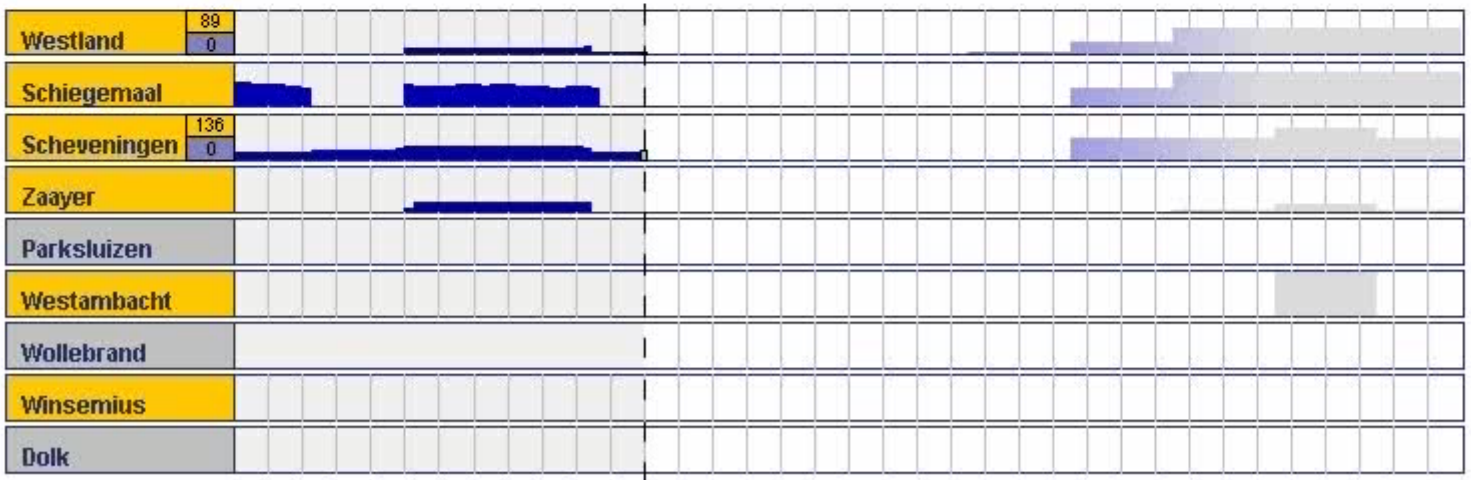










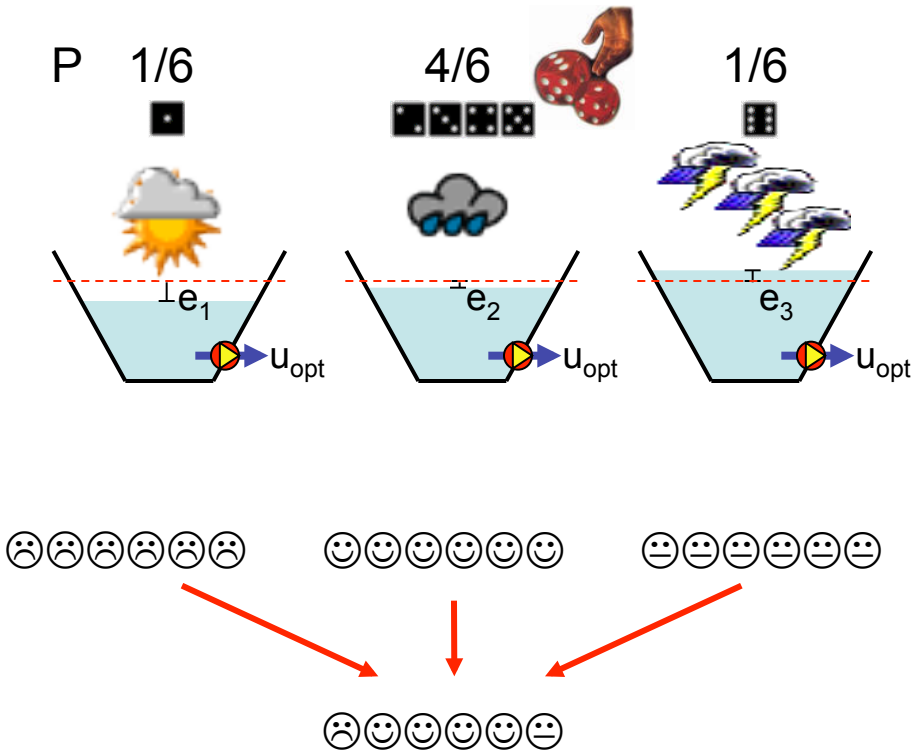


PUMP

Past 12h

Next 24h

Risk-based Water System Operation



RISK=
Probability X
Consequence

Solution 2: Go to mountains

Val Ferret experimental watershed, Switzerland

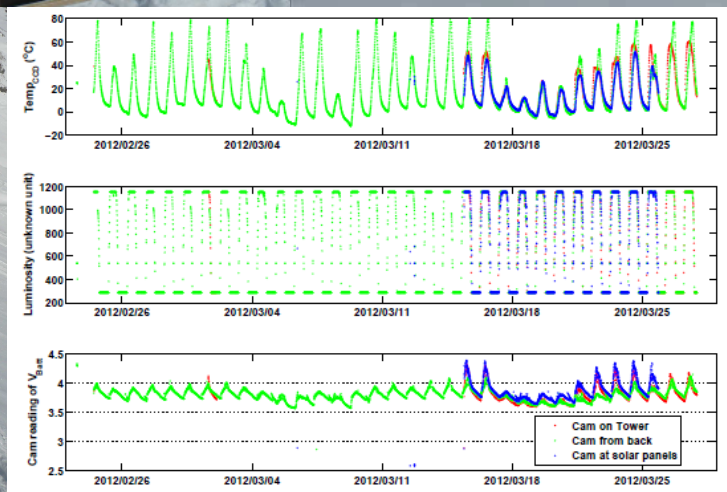
Making sense of the water flows

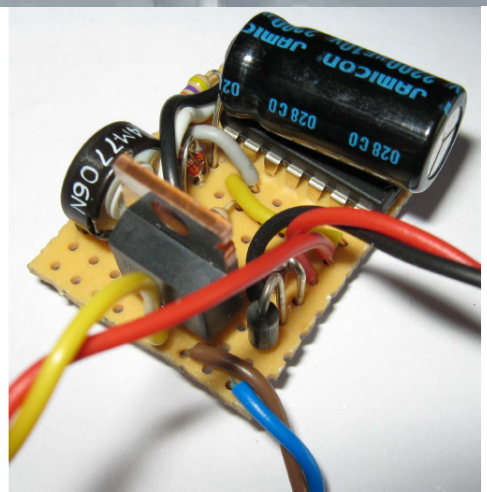
Val Ferret, Switzerland

Weijs, S.V.; Diebold, M.; Mutzner, R.; Golay, J. & Parlange, M.B.

Using hacked point and shoot cameras for time-lapse snow cover monitoring in an Alpine valley

Geophysical Research Abstracts, **2012**, *14*, 8244





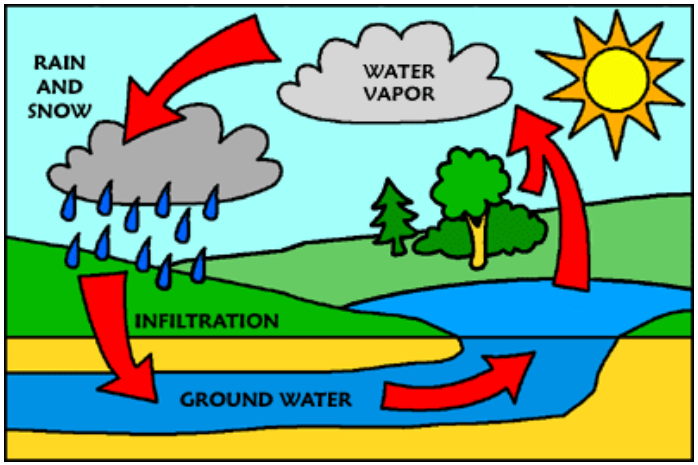
Hydrology: a zoo of scales

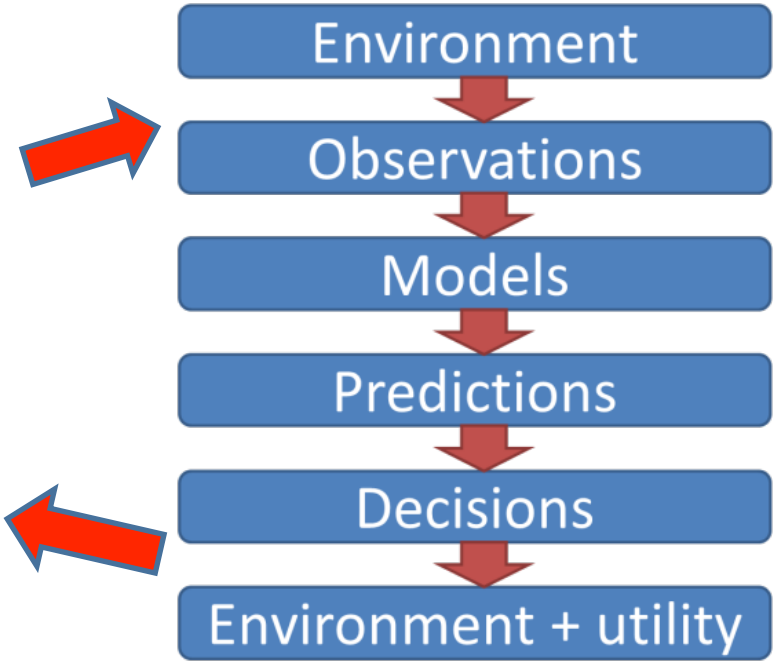
Understanding vs. Prediction

Feynman:

"Nobody understands quantum mechanics"

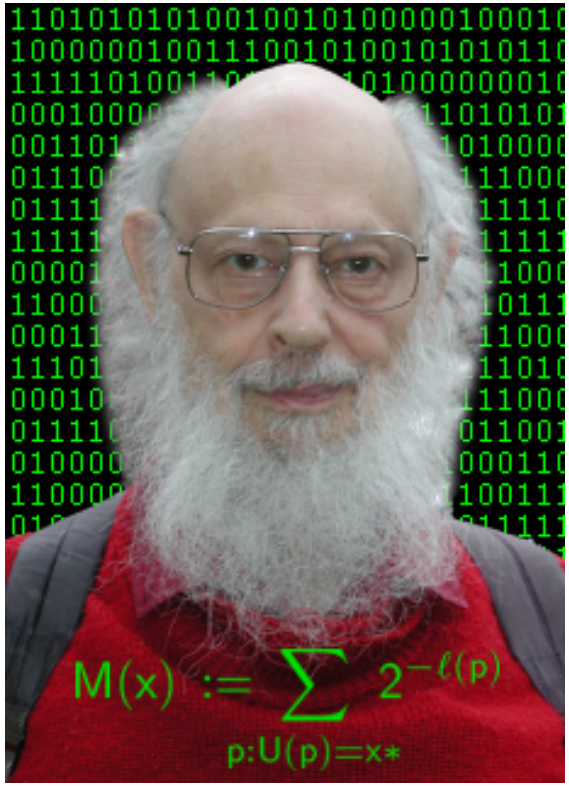
Hydrological information flows



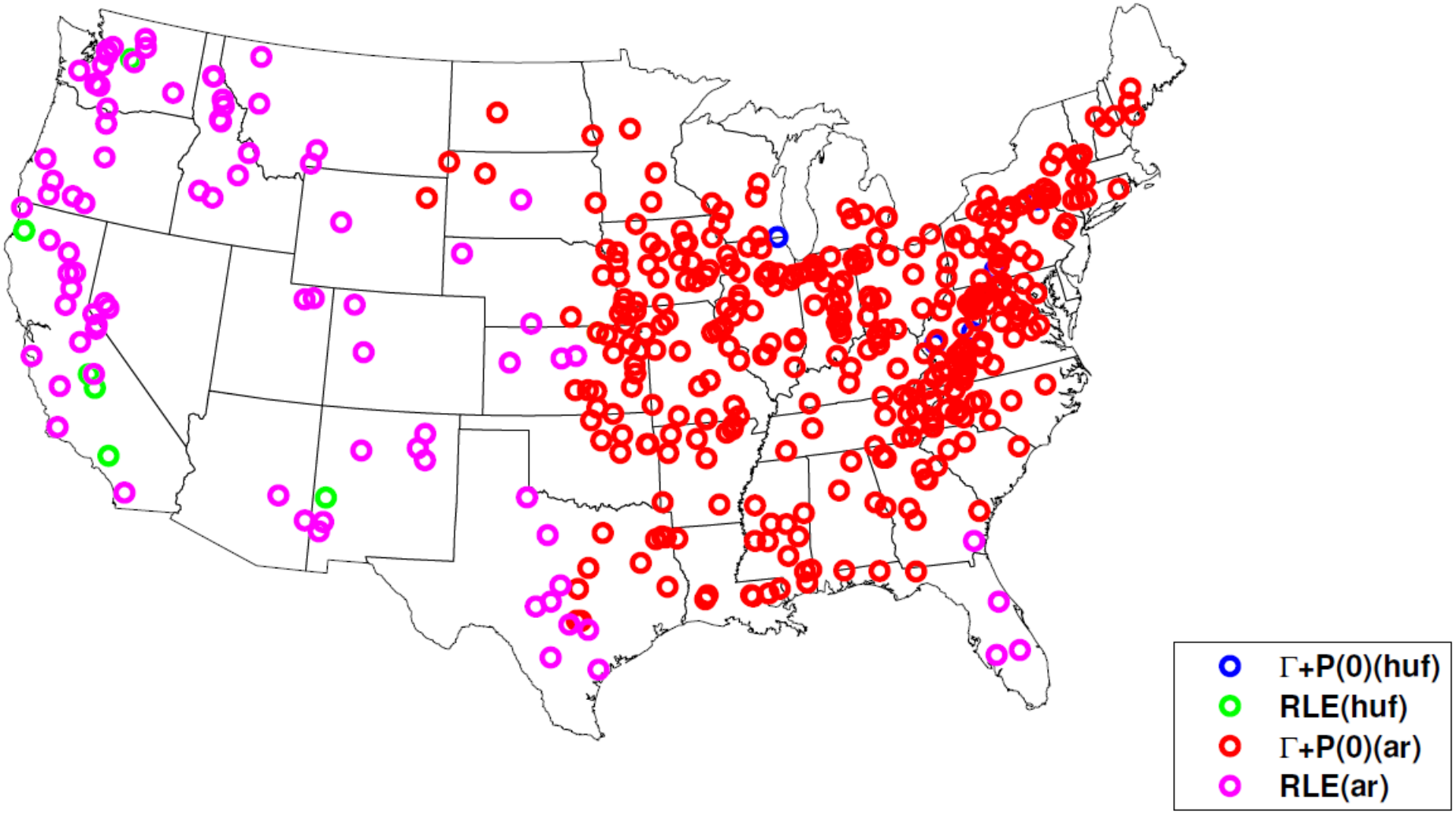


Algorithmic Information Theory

independently developed by Kolmogorov(1968), Solomonoff (1964) and Chaitin (1966)



Which algorithm zips P best?



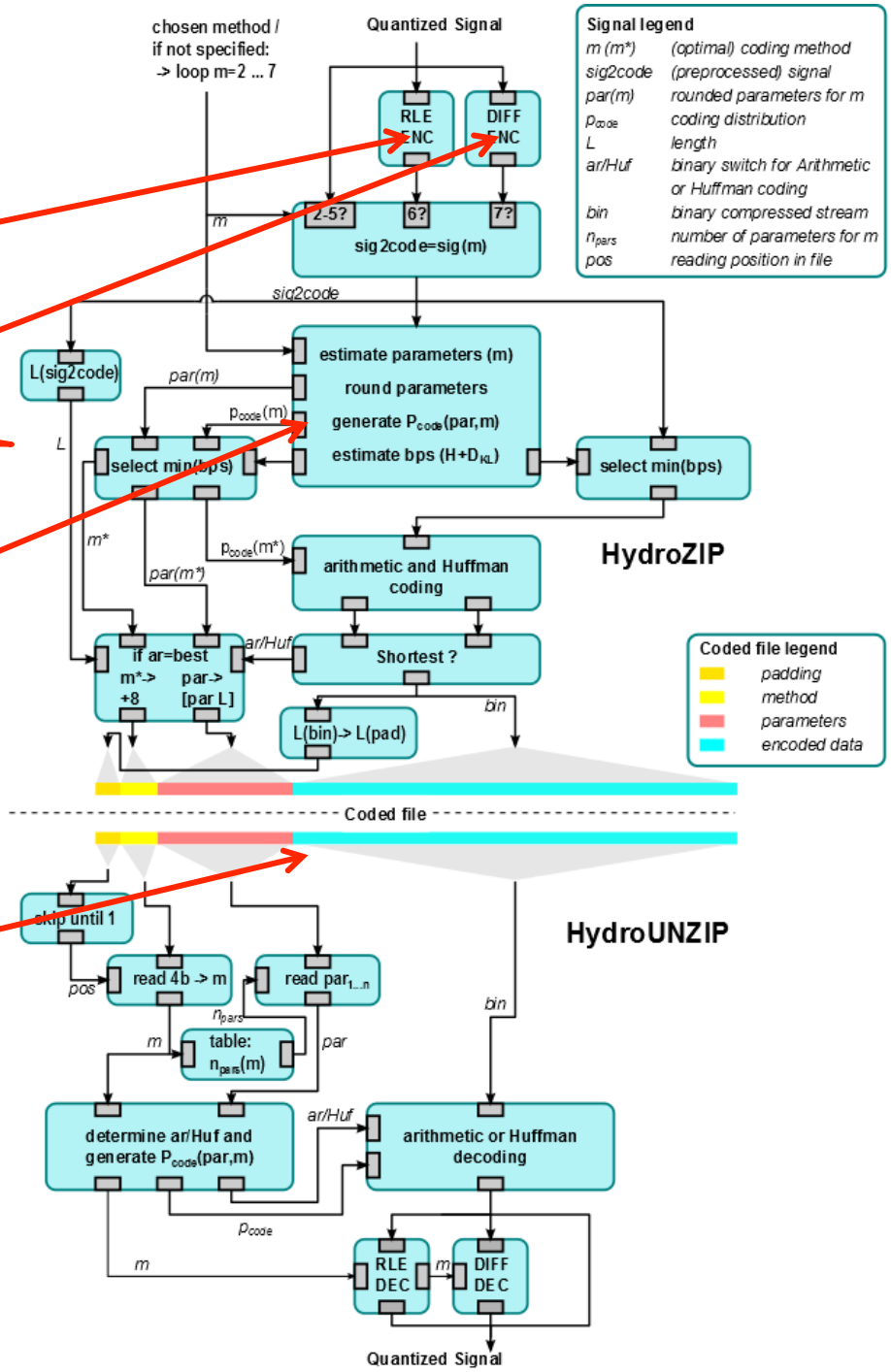
Hydro(UN)ZIP:

RLE on dry spells

Take differences

Try parametric distributions

File is complete description



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Objectives for presenting

- Scientific exchange
- You want to sell your conclusion
- You want to sell your method
- You want to sell your paper
- You want to sell your ideas
- You want to sell yourself
- You don't buy the status quo opinion (revolution!)

Have a story

- Objective is served by take home message
- Whole narrative depends on message
- Make sure you have a take home message
- Don’t be afraid to cut material
- Objective is rarely to show all you have done

Exercise: Elevator Pitch / Objectives

- Form groups
- Some of you get 2 minutes time to present (AGU) research in elevator pitch.
- If you want, use blank paper as poster
- All will write down key take home point of pitch
- And write down guess of objectives

Shared Document

http://bit.ly/1OpPWX3

Think of your main objectives

- If not present, add them to the doc

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How to convince…

How to convince your advisor

- Convince to pay trip and let you present
- Exciting new results: I have earned it!
- Perfect session, networking opportunity
- Opportunity to learn from other presentations
- Meet potential future employers (might convince you to finally wrap up Thesis)
- …

How to convince the convener

- First need to choose a session…
- Very important for objectives
- Session defines your likely audience
- Impress certain conveners?
- Choosing right session gives more chances of talk (if you aim for that).
- Other reasons for choosing session? …

How to convince the convener

- Read the abstracts carefully for match
- Imagine session conveners aim for session
- Is there a message?
- Can you talk contribute to their objective?
- Maybe tune your wording
- Do the conveners know your work?
- Is your topic controversial? (debate!)
- Other ideas? …..

Examples

H31M: Predictions, Models and Hydrological Information: How Much Certainty Should We Expect in an Uncertain World?

Channelling information flows from observation to decision; or how to increase certainty

To make adequate decisions in an uncertain world, information needs to reach the decision problem, to enable overseeing the full consequences of each possible decision.

…

Examples

Ensemble hydro-meteorological forecasting

Expected benefits of ensemble hydrological predictions comprise higher forecasting skills, improved risk assessment and well-informed decision-making in operational water management. Ensemble hydro-meteorological forecast and warning systems have been developed to improve flood control and drought management, as well as to optimize water allocation and regulation for different uses. The value of such systems has been recognized across a wide range of sectors and users, including river basin authorities, public agencies, private entities and commercial industries. .

….

Extracting local information from crowds through betting markets

In this research, a set-up is considered in which users can bet against a forecasting agency to challenge their probabilistic forecasts. From an information theory standpoint, a reward structure is considered that either provides the forecasting agency with better information, paying the successful providers of information for their winning bets, or funds excellent forecasting agencies through users that think they know better. Especially for local forecasts, the approach may help to diagnose model biases and to identify local predictive information that can be incorporated in the models. The challenges and opportunities for implementing such a system in practice are also discussed.

Exercise:

- Take a look at your abstract and the session you are presenting in.
- Could you tune it more next time?

How to convince your partner??

- Conference important for career
- World depends on science that is sparked here
- It is not just drinking with colleagues
- Can probably be home in 6 hours if labor starts

OK! You made it here!

- Now convince your audience…