

Revisit plan for SWOT discharge paper



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Image radar de Toulouse par le satellite SWOT



DAWG's original plan

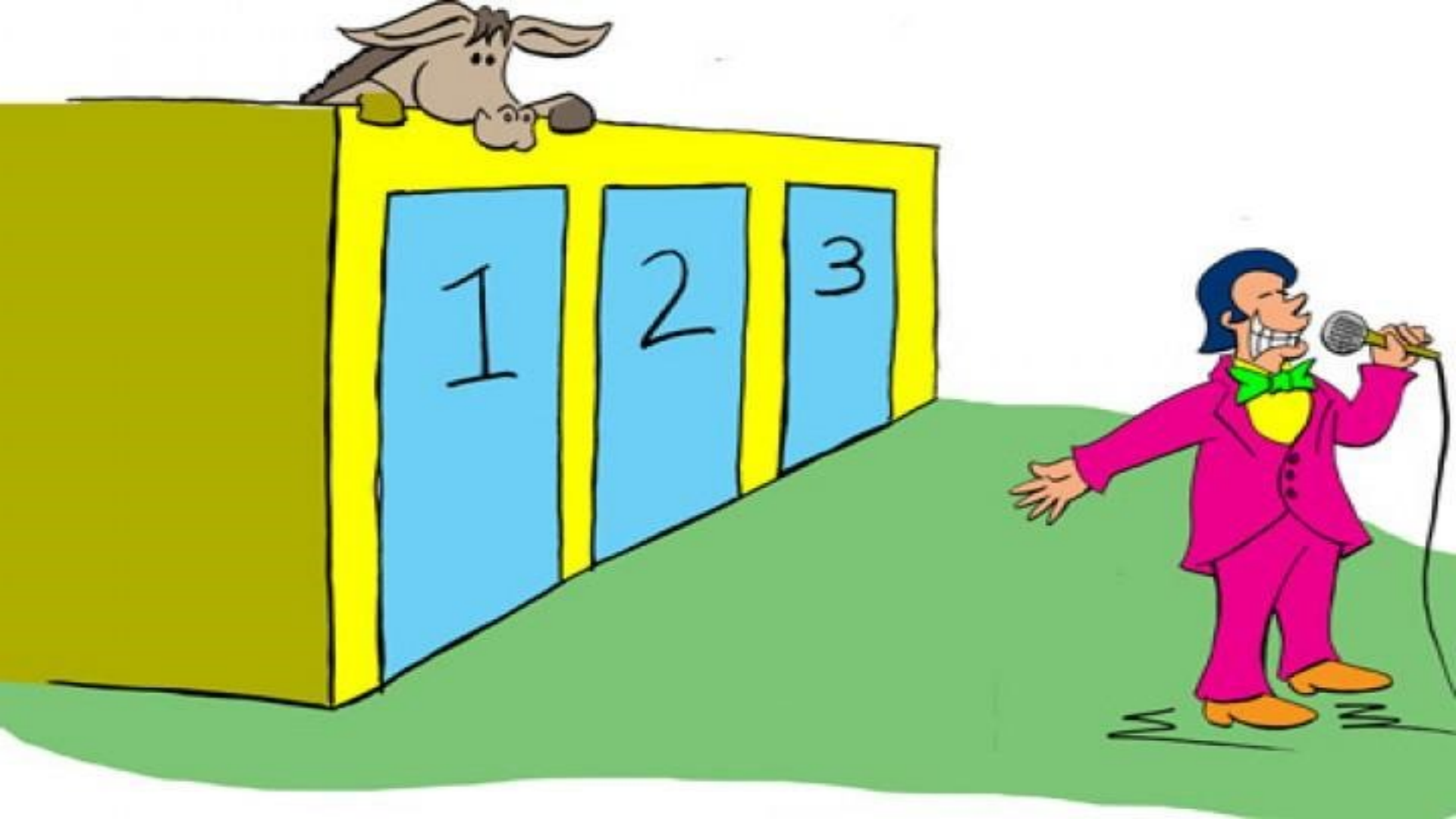
- Short paper to be published shortly after public data release
- High visibility journal
- Initial goal: *Repeat Pepsi experiments with real data*
 - Validation of discharge over all fast sampling orbit reaches
 - Large number of gauges/reaches
 - How well is uncertainty quantified?
 - How do algorithms perform? Is consensus product better?

The issues

- Forward-processed data available for 6 passes
- Any gages with $<10,000 \text{ km}^2$ was used for calibration purposes so can't be used
 - **20 gages available for validation**
- Current issues in SWOT observations lead to *seemingly* subpar performance of discharge algorithms
- We could include these results and add a number of caveats
- Perhaps can also custom reprocess (some) Cal/Val sites and demonstrate expected performance of SWOT discharge

A different perspective

- We will never be more accurate than a gauge
- Hydrologic remote sensing was able to estimate different parts of the water cycle
- River storage and fluxes (i.e., discharge) were largely missing
- SWOT offers unprecedented and complementary observations that transform river information from 1-D to 3-D
- Innovative use of cloud computing and demonstration of international collaboration



Paper 1 (Initial DAWG goal)

Comprehensive

Will have to wait

Paper 2 (Discharge validation with current data)

Quicker

Control the narrative

Results could be misinterpreted

Potentially not as exciting

Paper 3 (Different perspective)

Quick

Control the narrative

“Splashier”

It is not a discharge validation paper