XUG / Season 02 opening

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XUG ?

- Mostly people from the D1[1] departement for now
- Gather experimenters
  - ▶ (distributed) system experiments (e.g users of Grid'5000, other testbeds)
  - ▶ simulation + model validation (e.g users of Simgrid, Igrida)
- Discussions around practices towards better reproducible evaluations
  - ▶ We have a web site:
    https://xug.gitlabpages.inria.fr/meetings/
  - ▶ Announce are made by emails

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[1]D1-Day Nov. 29

Reproducible evaluations ?

ACM definition[2]:

- **Repeatability**: Can someone in my team use my artifact using the exact same experimental setup and get similar results ?
  e.g., I (or my teammates) can repeat my own experiment on the same Grid'5000 machines.

- **Replicability**: Can someone else from another team on another location use my articact and get similar results ?
  e.g., Can my friend using another testbed than Grid'5000 redo my experiment and

- **Reproducibility**:
  Can someone else build her own artifact (from the information of the paper), use her own platform and get similar results ?

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[2]https://www.acm.org/publications/policies/artifact-review-badging

Reproducibe evaluations ?

ACM definition[3]:

- Space dimension (ACM is providing badges at a given point in time)
- What about the time dimension: Will it be possible to redo (repeat/replicate/reproduce) an experiment in 10 years ?

$\rightarrow$ this is though !

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[3]https://www.acm.org/publications/policies/artifact-review-badging

What has been done last year 1/3
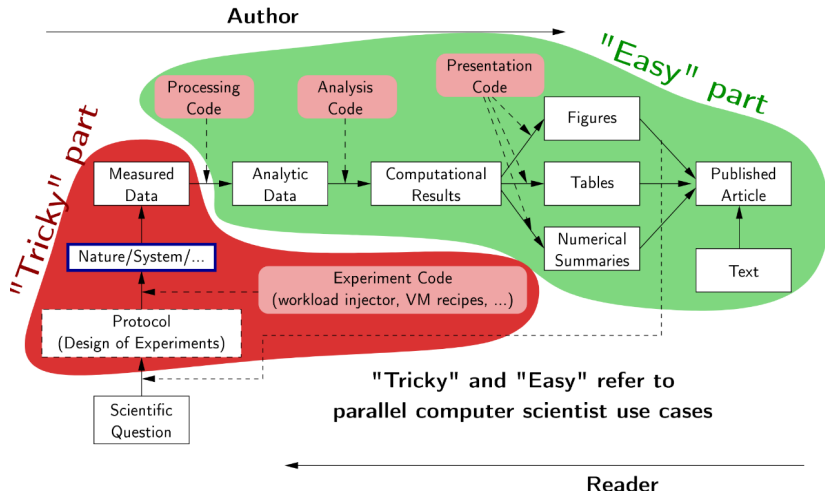
Typical session

- Someone presents something . . .
  - ▸ could be a feedback on an experimental campaign
  - ▸ could be an on-going work (not finished experimental campaign)
  - ▸ could be a plan for an experimental campaign
- . . . while the other attendee initiate
  - ▸ qestions
  - ▸ exchanges about the tooling and good practices

What has been done last year 2/3

- 6 sessions (6 months)
  - ▶ quick summary on
    https://xug.gitlabpages.inria.fr/meetings/
- Two tutorial sessions:
  - ▶ Grid'5000 for beginner (Getting Started)
  - ▶ Nix tutorial: management of replicable software environment

What has been done last year 3/3

- We use this picture as a common basis for our discussion[4]

Author

"Easy" part

"Tricky" part

Processing Code → Measured Data

Analysis Code

Presentation Code

Measured Data → Analytic Data → Computational Results

Nature/System/...

Experiment Code (workload injector, VM recipes, ...)

Protocol (Design of Experiments)

Scientific Question

Figures

Tables

Numerical Summaries

Published Article

Text

"Tricky" and "Easy" refer to
parallel computer scientist use cases

Reader

Inspired by Roger D. Peng's lecture on reproducible research, May 2014

[4] https://github.com/alegrand/SMPE/blob/master/lectures/1_reproducible_research.pdf

What do we plan for this year ?

- Presentations
  - volonteers ?
- Tutorials
  - specific needs ?
- State of the art discussion
  - paper selection ?
- Other Ideas ?
  - . . .

Misc information

There's a new forum https://reproducible-research.inria.fr/