

# Me, Myself and I – Overview of my research activities

with some questions and frustrations on experimentation

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2024-12-13, IRIT scientific day



## Teaching at Univ. Toulouse III, FSI

- System programming & design: L1 → M2
- Parallel computing: L3 → M1

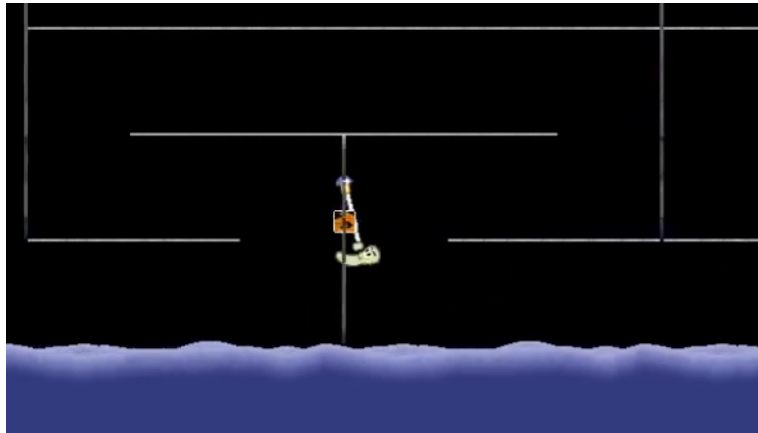
## Research at IRIT

- SEPIA team, ASR department
- UT3 site, IRIT2-469
- Missions: ecological transition, equality parity
- Grid'5000 group manager

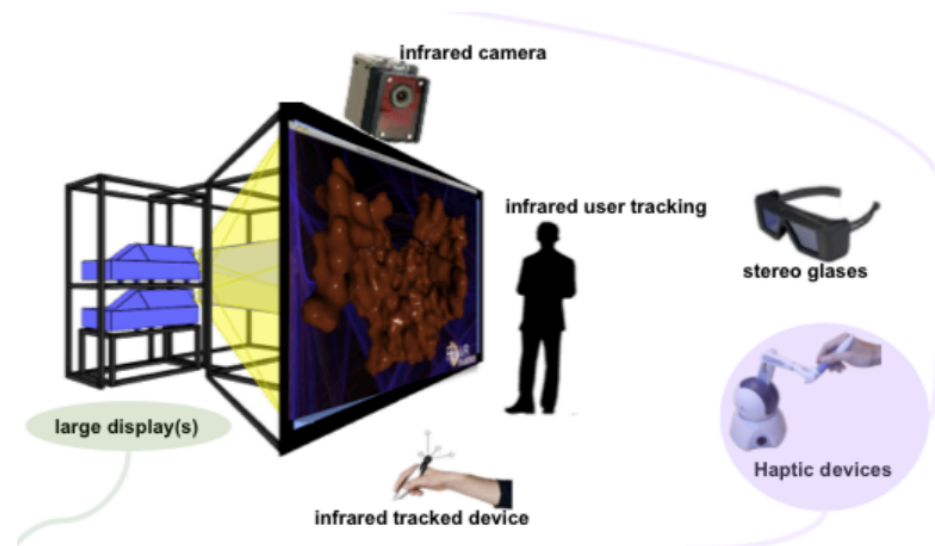
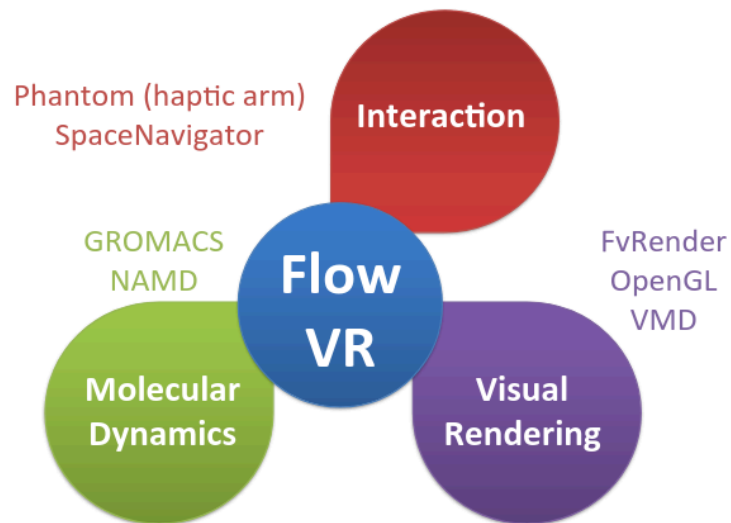
1. Give an overview of things I work(ed) on
2. ~~Good practice about experimentation~~ (Ain't Nobody Got Time for That)
3. Future directions

Learn how to program!

- *Worms Armageddon* map editor
- *Ultima Online* mining bot



Middleware to couple || simulator with || visualization and user interaction

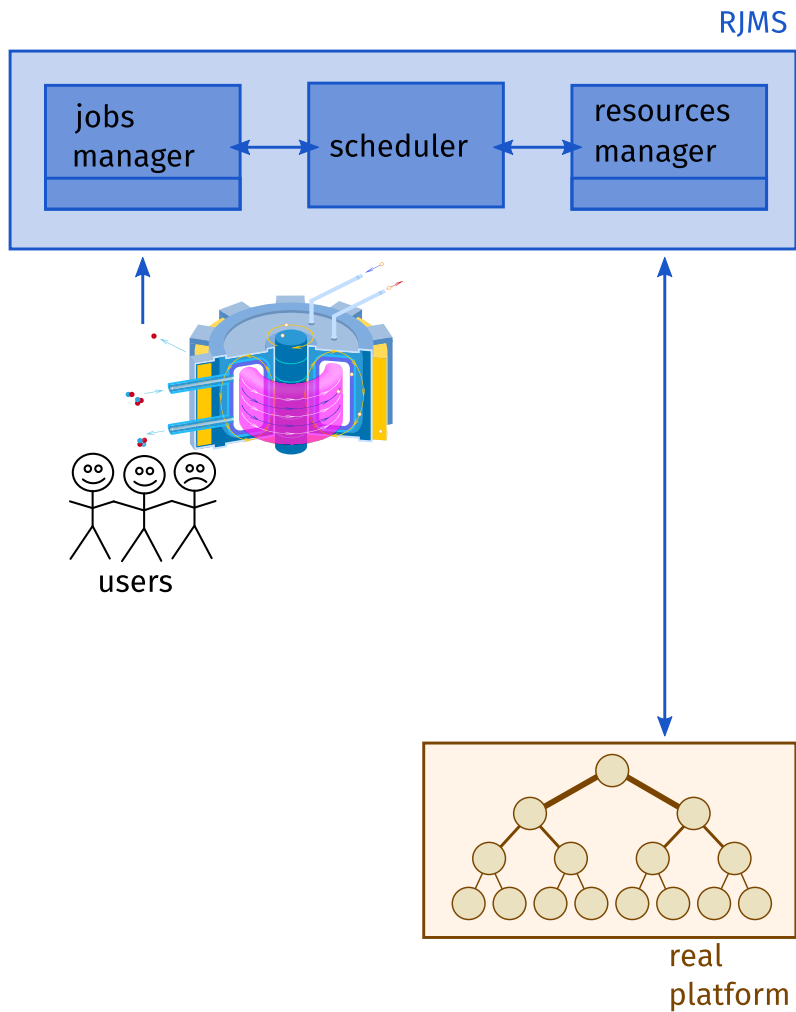


S. Limet



S. Robert

## Real



## Batsim simulation



PF Dutot, D. Trystram

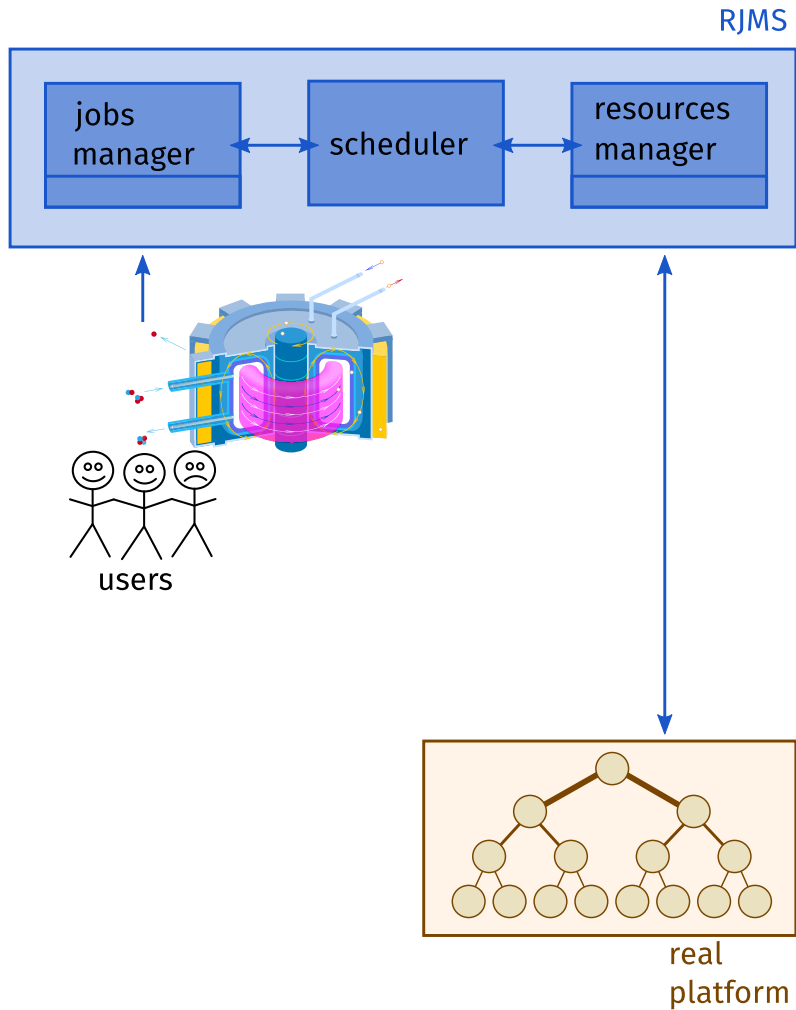


O. Richard

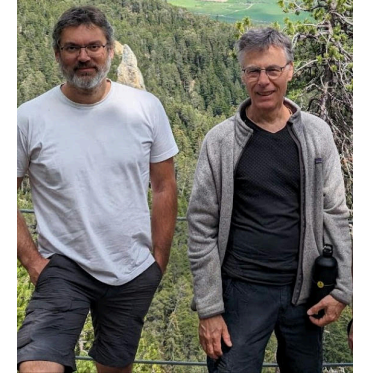
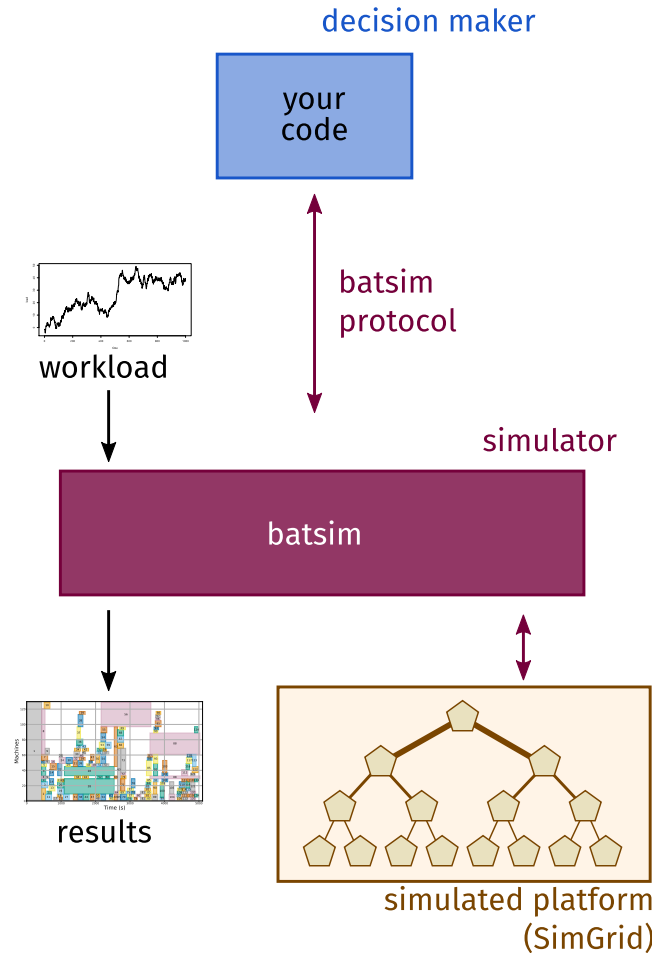


M. Mercier

## Real



## Batsim simulation



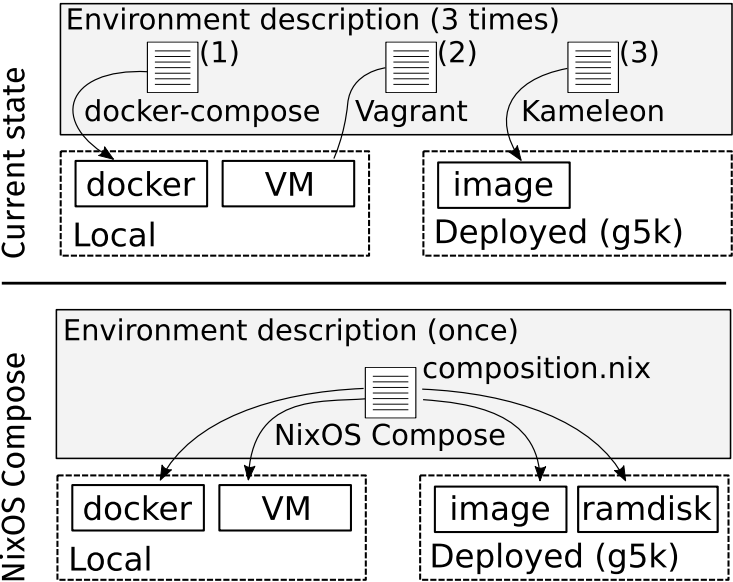
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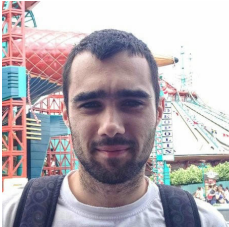
O. Richard



M. Mercier



Q. Guilloteau

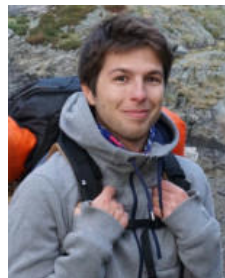
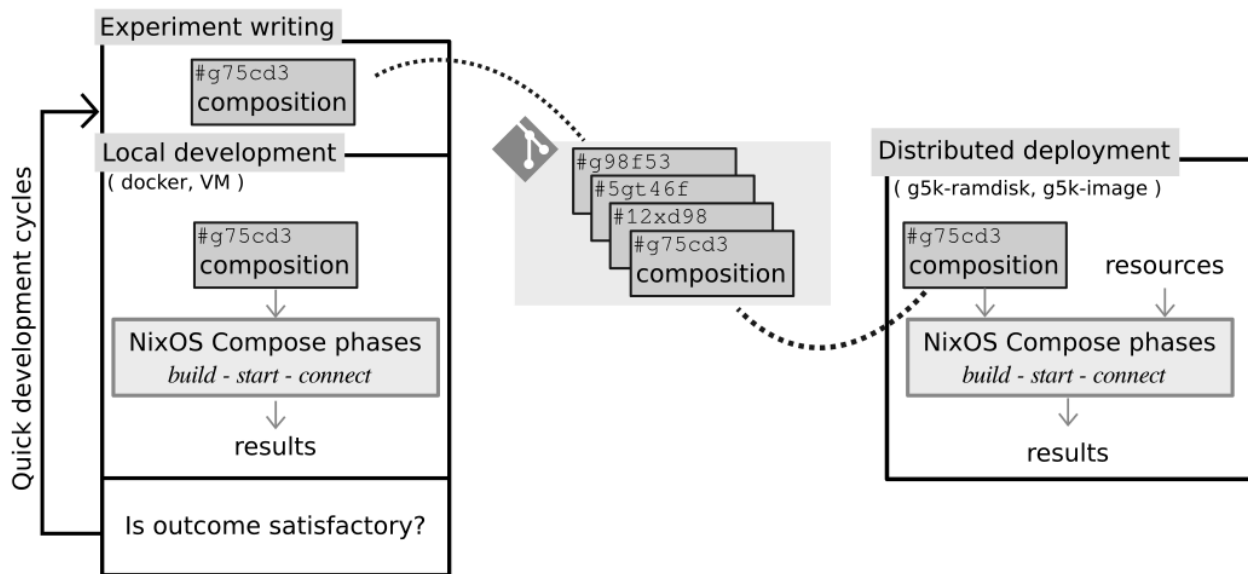
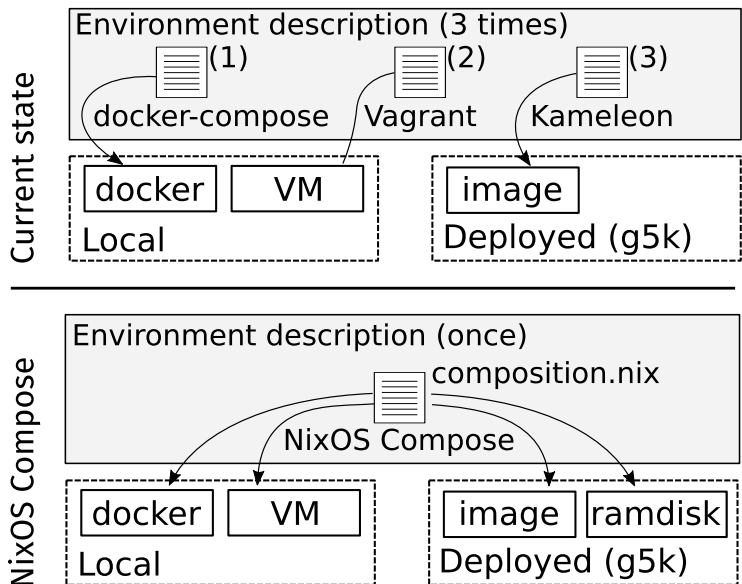


J. Bleuzen

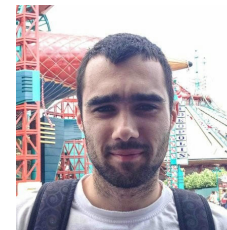


O. Richard





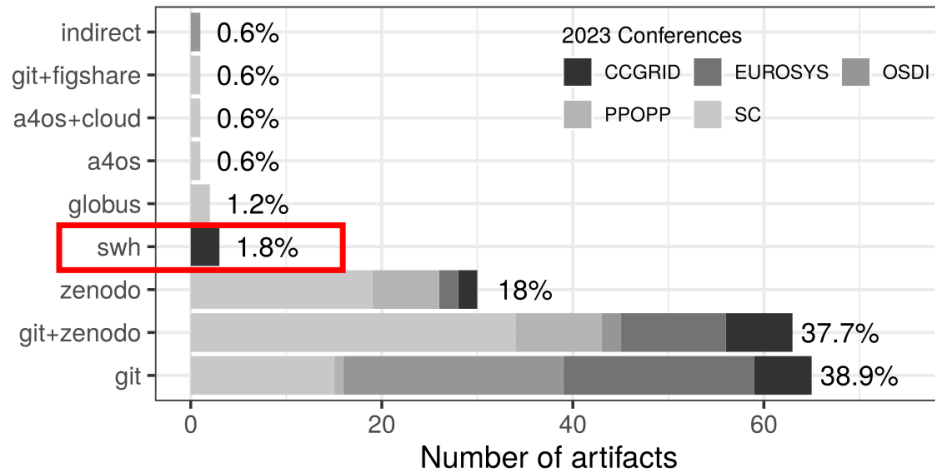
Q. Guilloteau



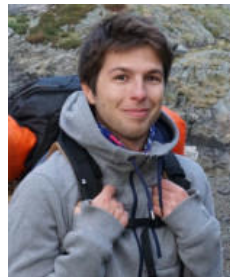
J. Bleuzen



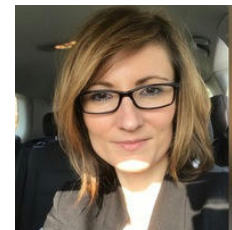
O. Richard



**Figure 1: Methods used by the authors to share artifacts.**



Q. Guilloteau



F. M Ciorba



D. Goepp



O. Richard

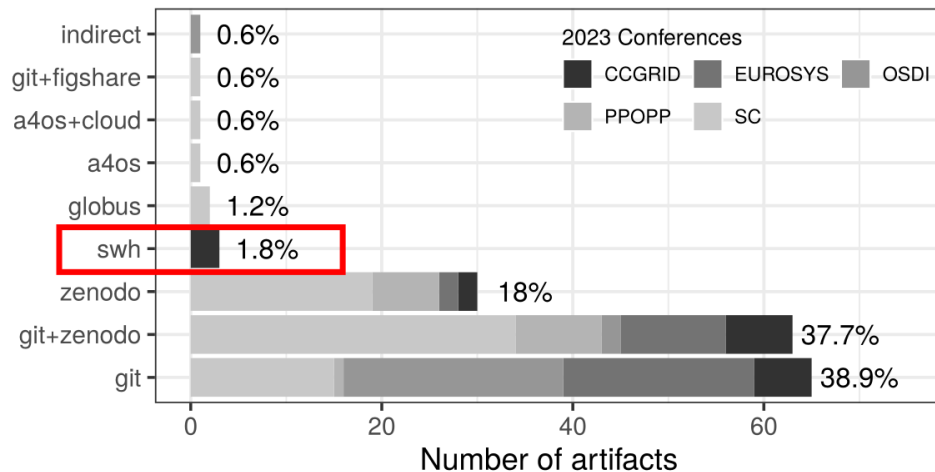


Figure 1: Methods used by the authors to share artifacts.

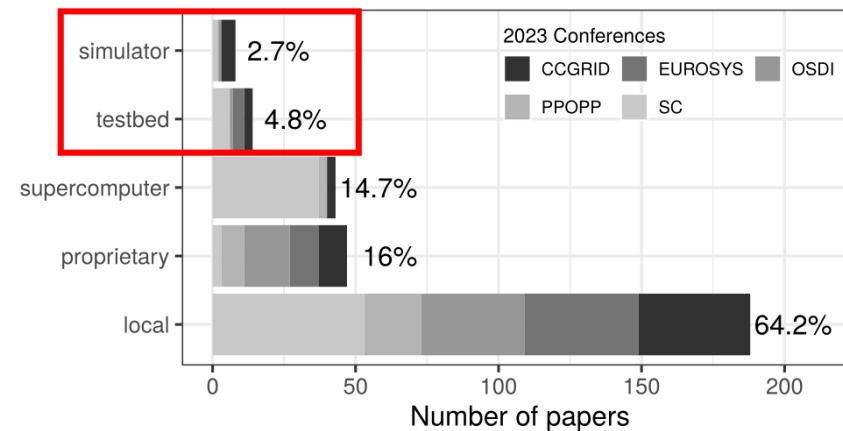
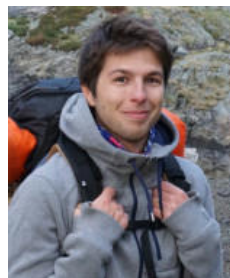
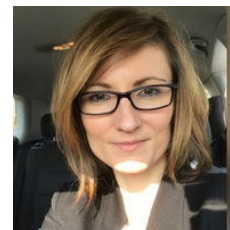


Figure 2: Experimental platform used in the surveyed articles. Most authors use the local machines at their disposal.



Q. Guilloteau



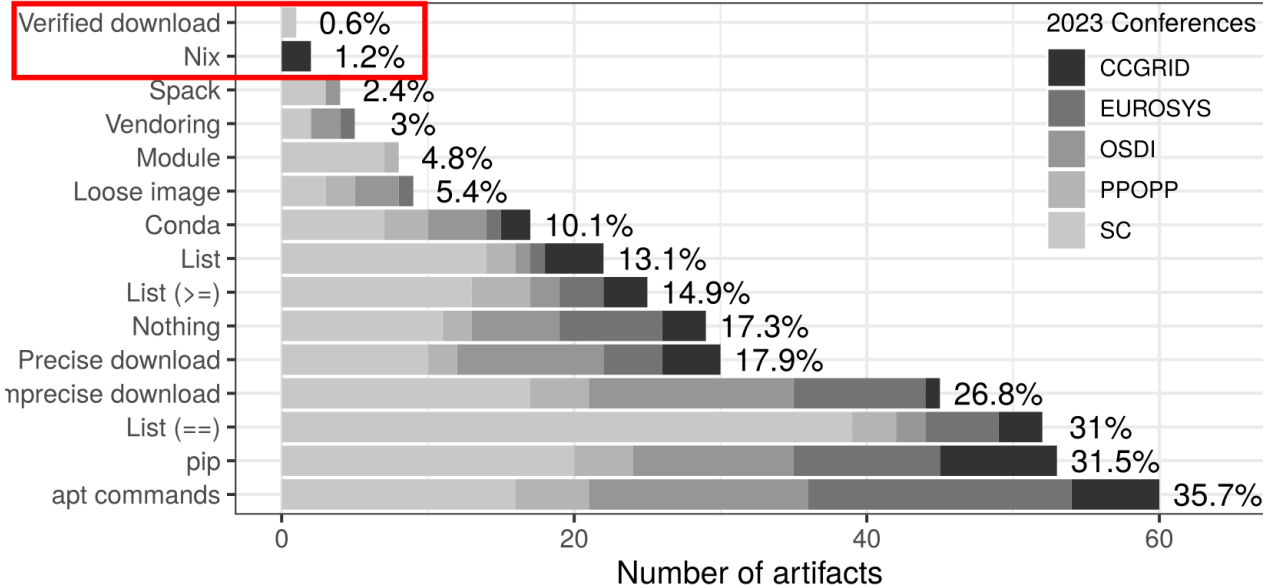
F. M Ciorba



D. Goepp



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Q. Guilloteau



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D. Goepp



O. Richard

## Tools for REP experimentation

- Good tools already exist — *e.g.*, SimGrid 2001, Nix 2003, G5K 2003, SH 2016
  - Invest into them — SG models, Nix accessibility, G5K features...
- New tools needed? Binary REP, well-designed workflow engine...

## *Ethics* and experimentation

- ~~Computer~~ Scientific Method when? [Patterson 2001]
- Environmental footprint of experiments considered when?
- What accessibility/quality tradeoffs?