LabEx DigiCosme

Digital worlds
Since 2012.

DigiCosme Research Days, June 5-6, 2018

Partners involved in DigiCosme

Partners:

Laboratories:

Scientific scope of DigiCosme

Sustainable software
Stefan Haar (INRIA and LSV)
Florent Kirchner (CEA-LIST)

1. security of systems

2. continuous versus discrete systems: models and verification

3. from high-level to low-level certification : combination and cooperation of verification techniques

Communications networks
Ghaya Rekaya Ben Othman (LTCI -Telecom ParisTech)
Steven Martin (LRI-CNRS-UPSud)

1. network information theory: coding, security and caching:

2. future access network: cloud and optimization problems

3. distributed networks: storage, computing, security and privacy

4. optical Communication: signal processing, coding and networks

DataSense
Céline Hudelot (MICS, CentraleSupelec)
Bertrand Thirion (INRIA-neurospin)

1. scalable, expressive and secure tools for large-scale data

2. making sense of complex, heterogeneous data and knowledge

3. machine learning : meta-learning and multi-task

4. interaction and visualization

Organization - Governance

Scientific coordination

- **Head:** Florence d'Alché-Buc (LTCI, Télécom ParisTech)
- **Deputy head:** Pierre Duhamel (L2S, CentraleSupelec)

Administrative and financial manager: Catherine Dal Balcon
Communication: Isabelle Huteau

Education Committee

- Bruno Defude (SAMOVAR, Télécom Paris Sud)
- Franck Quessette (DAVID, U. Versailles Saint-Quentin)

Research and Innovation Committee

- Véronique Benzaken (LRI, CNRS, U. Paris-Sud)
- Pierre Zweigenbaum (LIMSI, CNRS)

In practise, the way we work

General Actions - 2 call for projects /year

- Submitted projects reviewed by the community (2 reviewers/project)
- Research/Education Committee deals with the submitted reviews and proposes a ranking of the projects
- Executive Committee takes final decision and votes the budget.

Emerging projects

- 1 call on a yearly basis (except 2018)
- Committee with external experts

Actions in Education

- 1 yearly Computer Science Competition at Lycée level
- About 15 yearly Excellence Master Grants
- 9 Invited professors
- 1 Thematic Summer School, 1 Junior Conference on a yearly basis

What has changed since 2016:
Junior Conferences in Data Science and Engineering (2016,2017,2018) and another one planned in 2019 in Communication Networks, an important link between Masters and PhD students.

Actions in Research

- **6 Emergence projects (support for new incoming PI)**
- 30 PhD thesis, 20 postdocs and engineers
- 8 doctoral and post-thesis missions

What has changed since 2016:

a new scientific strategy: encourage synergy within Working Groups (GT) by allocating postdoc, engineer and intern positions to a project, when it is a building block of the Working group.

Actions in Innovation

Jean-Claude Dufourd (LTCI) and Pierre Duhamel (L2S).

- ▶ Collaboration with Systematic on industrials-academics meetings
- ▶ Contribution to 3 projects funding with Paris-Saclay SATT in 2016 and 2017
- ▶ Software day in 2018 (June 7)

What has changed since 2016:

Share good practise in software coding and encourage software propagation (emblematic case of scikitkearn) as a potential first step towards innovation.

DigiCosme Days

- ▶ Keynote speakers outside the labEx and within the labEx in key domains
- ▶ Activities of the labEx prese,ted by Research, Education committees and axes coordinators
- ▶ Research contributions: Working groups, phD thesis and postdoc
- ▶ Perspectives for the LabEx