Sommaire

01. Context
02. Objectives
03. Team
04. Research axes
05. Usage
06. Collaborations
Context
Context

PlaFRIM is a **scientific instrument** designed to support experiment-driven research in all areas of applied mathematics related to modeling and high performance computing.

People eligible to use the Platform are:
- **academic researchers**, including from Inria and its partners.
- **SME enterprises**. In this case, an agreement has to be signed before using the cluster.
- **students** during their school year (typically hands on training sessions). The **teacher** must contact the PlaFRIM team.
PlaFRIM is an **experimental testbed**, being developed under the Inria PlaFRIM development action with support from Bordeaux INP, LaBRI, IMB and other entities: Conseil Regional d’Aquitaine, Universite de Bordeaux, CNRS and ANR in accordance to Programme d’Investissement d’Avenir.
Context

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Objectives
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PlaFRIM is a **scientific instrument** designed to support experiment-driven research in all areas of applied mathematics related to modeling and high performance computing.
Team
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Olivier Coulaud  
Scientific Manager

Julien Lelaurain  
Platform Administrator

Nathalie Furmento  
User Committee Manager

Francois Rue  
Technical Manager
Team

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1.6 ETP Inria
0.2 ETP LaBRI
Team

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04
Research axes
Research axes

PlaFRIM research axes are

- Modélisation, calcul intensif et architectures parallèles
Research axes

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- Modélisation, calcul intensif et architectures parallèles
- Gestion des incertitudes et optimisation
Research axes

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- Modélisation, calcul intensif et architectures parallèles
- Gestion des incertitudes et optimisation
- Modélisation pour la santé et la biologie
Research axes

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- Modélisation, calcul intensif et architectures parallèles
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- Humain et numérique: interaction et visualisation
Research axes

PlaFRIM research axes are

- Modélisation, calcul intensif et architectures parallèles
- Gestion des incertitudes et optimisation
- Modélisation pour la santé et la biologie
- Humain et numérique : interaction et visualisation
- Learning and Deep Neural Networks
Research axes
Usage

PIaFRIM usage are:

- More than 50 publications /year from 6 years
- Utilization rate: 60%
- ~ 300 active accounts
- ~ 50 teams
Collaborations
Collaborations

Tables rondes sur les matériels expérimentaux

**Table ronde Intel KNL – 2017**
- *Xeon Phi Architecture Overview and roadmap* - Asma Farjallah, HPC Application Engineer (Intel) & Alexandre Chauvin, HPC Account Executive (Intel)
- *Evaluation and Usability of the Cache Aware Roofline Model on PlaFRIM Knight Landings* - Nicolas Denoyelle (TADaaM)
- *Evaluating the impact of Intel KNL memory settings on performance through case studies* - Ian Masliah (HiePACS)
- *Exploiting multi-level parallelism on Intel KNL* - Terry Cojean (STORM))

**Dell Experimental Cluster** (Austin) with v100 Nvidia cards

**Hackathon 2018** : Genci, Inria
Collaborations

2019

Intel Workshop: juin 2019

Nvidia: Round Table Q1 2019

Tutorial (Intel Tools): Profiling & Optimisation (Vtune, Advisor Q1 2019)
Merci !

Suivez-nous sur www.plafrim.fr

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