

# Laboratory of Mathematics and its Applications of PAU UMR CNRS 5142

*Welcome*



The Laboratory of Mathematics and its Applications of Pau is part of the [CNRS](#) and of the University of Pau and Adour Region. It is a member of the [IPRA Federation](#) FR 2952 and of the [Institute Carnot-isifor](#). | 📄

Furthermore, the LMAP is associated with INRIA via 2 common teams, namely «Magique3D» and «Cagire».

## Main research areas

- **Probability and Statistics**
  - Stochastic modeling, probability,
  - Data analysis, statistical inference.
- **Algebra and Geometry**
  - Algebraic geometry of projective space and low dimensional topology.
- **Partial differential equations analysis**
  - Non linear partial differential equations and optimization.
- **Analysis and Numerical Simulation**
  - Fluid mechanics, porous media, waves and turbulence,
  - Discretization methods for partial differential equations,
  - Approximation, moving mesh, High Performance

## Areas of Expertise

- Petroleum engineering and reservoir simulation
- Aerothermodynamics (combustion and cooling)
- Hydrodynamics and pollutant transportation
- Reliability and safety in industry

- Sampling design and quality control
- Data analysis and statistical methods for decision making
- Environment and biology



dépasser les frontières



*Inria*