

Dominique LAVENIER

DR CNRS

UMR CNRS 6074, IRISA – INRIA Centre de Recherche Bretagne Atlantique, Rennes

Team leader of the Bioinformatics GenScale Group, IRISA/INRIA

Domain of research

Bioinformatics

Molecular Biology, Genomics, Computational Biology, NGS

Computer Sciences

Algorithms, Parallelism, HPC, data structure, big data

Skill

- 1989 PhD in computer science, Rennes University
- 1989 CNRS researcher position at IRISA
- 1997 HDR (qualification for directing PhD student)
- 1999 Foreign visitor: Full time researcher at the Los Alamos National Laboratory, New Mexico, USA, from august 1999 to July 2000 in the Nonproliferation and International Security (NIS) division.
- 2000 Creation of the Master Genomics and Informatics at the University of Rennes.
Co-director (2000-2004)
- 2001 Creation of the group Architecture and Parallelism within the INRIA bioinformatics Symbiose team
- 2002 CNRS senior researcher position (Research Director)
- 2004 Creation of the Master Bioinformatics, University of Rennes, Co-director (2004-2008)
- 2008 Professor at Ecole Normale Supérieure de Cachan
- 2010 CNRS senior researcher position (Research Director)
- 2010 Team leader of the bioinformatics Symbiose IRISA/INRIA team
- 2012 Team leader of the bioinformatics GenScale IRISA/INRIA team
GenScale: Scalable, Optimized and Parallel Algorithms for Genomics

Distinctions

- CNRS Bronze medal (1992)
- French Cray Prize (1996) in algorithm, architecture, and micro-electronics.
- Winner of the 4th French national competition to support the creation of innovative technology companies (ANVAR 2002)

Publications

- Journals 40
- Conferences 90
- Patents 3
- Book chapters 5

PhD & Master supervision

- PhD 18
- Masters 25

Scientific animation

Scientific Committee

- Genopole BioGenOuest (2015 -)
- Institute of Computational Biology, Montpellier (2014 -)
- National Research Program on Digital Models (ANR MN 2011-2012)
- National Research Program on Simulation and Design (ANR Cosinus 2010)
- National Research Program on Emerging Research Domain (ANR Defis 2009)
- Scientific & Technical Council of the European MORPHEUS project (2006 – 2008)
- National Research program on new architectures (ANR Architectures du future, 2006, 2007)
- National Research Program on Intensive Computation, Grids and Simulation (ANR Calcul intensif, grille, simulation, 2005, 2006)
- National Research program on Informatics, Mathematics, and Physics for biology (ACI IMPbio 2003, 2004)

Conference Program Committee Member (2015-2010)

- IEEE International Conference on Bioinformatics and Biomedicine Workshop on Algorithms for Computational Biology (2014-2015)
- International Workshop on Biological Knowledge Discovery and Data Mining (2015)
- RECOMB-SEQ: Workshop on Massively Parallel Sequencing (2014-2015)
- Workshop on Parallel Computational Biology (2013, 2015)
- IEEE International Conference on High Performance Computing (2015)
- International Conference on Field Programmable Logic and Applications (2002-2014)
- Southern Programmable Logic Conference (2007-2014)
- International Conference on ReConfigurable Computing and FPGAs (2005-2014)

Project Coordinator (main projects)

- HydroGen (ANR STIC Challenge 2014-2018) Comparative Metagenomic
- GATB (ANR Emergence 2013-2014) Genomic Assembly Toll Box
- BioWIC (ANR Arpege 2009-2011) Bioinformatics Workflow for Intensive Computation
- ReMIX (ACI MD 2003-2006) Reconfigurable Memory for Indexing Mass of Genomic data.
- GénoGRID (ACI GRID 2001-2004). GRID for time-consuming genomics applications