

Curriculum Vitæ - Guillaume FERTIN

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1. Civility

Name : FERTIN Guillaume

Date and place of birth : 24th July 1972, Lille (France) ; French citizen

Current Position : Professor, LS2N/Computer Science Department, University of Nantes, FRANCE

2. Cursus

2005- : Professor, LS2N and Computer Science Department, University of Nantes.

2000-2005 : Assistant Professor, LINA and Computer Science Department.

1999-2000 : Assistant Lecturer, University Bordeaux 1.

1996-1999 : PhD student, LaBRI, Université Bordeaux 1.

3. Research Activity

My topic of research is the algorithmic study of biologically motivated problems. This implies determining, for a given problem, the border between tractable and intractable instances, in order to understand what parameters of the problem make it hard. This, in turn, allows to determine the best strategies to circumvent the intrinsic complexity of the problem, and provide solutions that offer the best trade-off between execution time and quality of the answer. The problems I have been interested in lately concern mass spectrometry, motif search in biological graphs and comparative genomics.

Publications (sources : DBLP and Google Scholar)

- 1 book, 1 book chapter, 1 proceedings
- 46 refereed journal publications - 51 conference proceedings publications
- h-index:25 - Number of citations : 2157

Recent Grants

- ANR BioTempo 2011-2014 (5 biology groups, 6 computer science groups)
- GRIOTE Regional Project 2013-2017 (6 biology groups, 4 computer science groups)
- CAPES-COFECUB 2015-2018 (with U Campinas, Brazil)
- Procope 2017-2018 (with U. Jena, Germany)
- PEPS GETAJOB (CNRS grant) 2017-2018

Program Committee

- International conferences : CompBioNets 2004-2005, RECOMB-CG 2008-2010, 2015, 2016, 2017, ISBRA 2009-2014, ICCABS 2011-2013, GIW 2012, WABI 2012, AAIM 2016
- National Conferences : JOBIM 2006/2008

PhD, Post-Doc

- 7 PhD co-tutorships since 2002, 1 post-doc
- External member of jury : 13 theses, 2 HDR (Habilitation à Diriger des Recherches)

Referee

- Associated editor for BMC Bioinformatics since January 2010
- External referee (~12 per year on average) :
 - international conferences (e.g. CPM, ESA, FSTTCS, MFCS, RECOMB, STACS, WABI, ICALP)
 - international journals (e.g. J. Comp. Biology, IEEE/ACM Trans. on Comp. Biology and Bioinformatics, J. Discrete Algorithms, SIAM J. on Computing, J. Mathematical Biology, IPL)

4. Selected Publications

1. Combinatorics of Genome Rearrangements. **G. Fertin**, A. Labarre, I. Rusu, E. Tannier and S. Vialette. MIT Press, 2009.
2. Laurent Bulteau, Guillaume Fertin, Irena Rusu. Pancake Flipping Is Hard. *Journal of Computer and System Sciences*, Elsevier, 2015, 81 (8), pp.1556-1574.
3. Laurent Bulteau, Guillaume Fertin, Christian Komusiewicz. (Prefix) reversal distance for (signed) strings with few blocks or small alphabets. *Journal of Discrete Algorithms*, Elsevier, 2016, 37, pp.44-55.
4. Matthieu David, Guillaume Fertin, Helene Rogniaux-Bonaventure, Dominique Tessier. SpecOMS: A Full Open Modification Search Method Performing All-to-All Spectra Comparisons within Minutes. *Journal of Proteome Research*, American Chemical Society, 2017, 16 (8), pp.3030-3038.

5. Guillaume Fertin, Géraldine Jean, Eric Tannier. Algorithms for computing the double cut and join distance on both gene order and intergenic sizes. *Algorithms for Molecular Biology*, BioMed Central, 2017, 12, 16 (11 p.).