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Born on August 14th 1983
French citizen
Married, 2 children

Nathalie Aubrun

CURRICULUM VITÆ

Education

2011-2012	**Post-doctoral position**, *Department of Mathematics*, University of Turku.
2008–2011	**Phd Thesis defended on June, 22th 2010**, *LIGM Université Paris-Est*, Supervisors : Marie-Pierre Béal and Mathieu Sablik. Title : *Symbolic dynamics of 2D systems and infinite trees.*
2007–2008	**Master's degree in Fundamental Computer Science**, *ENS Lyon*, with honours.
2007	**Agrégation de Mathématiques**. (French competitive examination to become a mathematics teacher in secondary school, high school and university)
2005	**Bachelor's degree in Fundamental Computer Science**, *ENS Lyon*, with honours.
2004	**Admission to Ecole Normale Supérieure (ENS) de Lyon**.
2003	**Bachelor's degree in Mathematics**, *Université de Bordeaux I*.

Research training periods

2008	**Stability of classes of subshifts under factor and subaction**, *supervised by Mathieu Sablik*. 6 months training period at LATP (Marseille – France)
2006	**Iteration of probability measures by cellular automata**, *supervised by Alejandro Maass*. 10 weeks training period at DIM (Santiago – Chile)
2005	**Linear temporal logic**, *supervised by Igor Walukiewicz*. 6 weeks training period at LABRI (Bordeaux – France)

Teaching

2010–2011	**Database management systems**, *First year students of IUT de Marne la Vallée*, 29 hours of lecture.
2009–2010	**Java**, *First year students of IUT de Marne la Vallée*, 20 hours. **Programming**, *Bachelor student of Université Paris-Est*, 22 hours.
2008–2009	**Algorithmics**, *Master students in Université Paris-Est*, 52 hours of lecture.

Mathematics and Algorithmics, *First year students of the engineers school* Ingénieur 2000, 16 + 12 hours.

Miscellaneous

Languages	French (native), English (fluent), Spanish (advanced), Finnish (beginner)
Computer skills	Linux, LaTeX, OCaml, Java, C, Coq
Interests	Photography, Tennis, Football

Publications in Journals and Conferences with review committee

International Journals

[1] Nathalie Aubrun and Marie-Pierre Béal. Tree-shifts of finite type. To appear in *Theoretical Computer Science*, 2012.

[2] Nathalie Aubrun and Mathieu Sablik. Simulation of effective subshifts by two-dimensional subshifts of finite type. 2012. *To appear in* Acta Applicandae Mathematicae.

Proceedings of International Conferences

[3] Nathalie Aubrun and Marie-Pierre Béal. Decidability of conjugacy of tree-shifts of finite type. In *ICALP 2009: Proceedings of the 36th International Colloquium on Automata, Languages and Programming*, pages 132–143. Springer-Verlag, 2009.

[4] Nathalie Aubrun and Marie-Pierre Béal. Sofic and almost of finite type tree-shifts. In *CSR 2010: 5th International Computer Science Symposium in Russia*, volume 6072 of *Lecture Notes in Computer Science*, pages 12–24. Springer, 2010.

[5] Nathalie Aubrun and Mathieu Sablik. An order on sets of tilings corresponding to an order on languages. In *STACS 2009: Proceedings of the 26th Annual Symposium on the Theoretical Aspects of Computer Science*, pages 99–110. IBFI Schloss Dagstuhl, 2009.

Submitted

[6] Nathalie Aubrun and Marie-Pierre Béal. Sofic tree-shifts. Submitted to *Theory of Computing Systems*.

[7] Nathalie Aubrun and Mathieu Sablik. Multidimensional effective s-adic systems are sofic. Submitted to *Ergodic Theory*.

In progress

[8] Nathalie Aubrun and Marie-Pierre Béal. Tree algebra of sofic tree languages.

[9] Nathalie Aubrun and Jarkko Kari. Tiling problems on Baumslag-Solitar groups.