

# Maxime Folschette

3<sup>rd</sup> Year PhD Student in Bioinformatics

Current position: IRCCyN (Nantes, France)

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## EDUCATION

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Since Oct. **PhD student in bioinformatics**, MENRT (ministry grant)

2011 • **Team: MeForBio** (Formal Methods for Bioinformatics)

• **Subject: Algebraic modeling of multi-scale evolution and dynamics of biological regulatory networks**

• **Keywords:** Formal Methods, Biological Regulatory Networks, Parameters Inference

*École Centrale de Nantes (Nantes, France) — Laboratory: IRCCyN — Team: MeForBio*

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2011 Double diploma at the **École Centrale de Nantes** engineering school:

2008–2011 • **Engineering diploma**

*Options: Computer Science and Research & Development*

2010–2011 • **Master thesis** in Automatics, Production Systems and Real Time

*Subject: Applying the Hoare logic to gene regulatory networks*

*École Centrale de Nantes (Nantes, France)*

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2006–2008 **Classes Préparatoires aux Grandes Écoles** (MPSI/MP), intensive courses in maths and sciences

June 2006 **Baccalauréat S**, equiv. A levels

*Lycée Jacques Amyot (Melun, France)*

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## PEER-REVIEWED PUBLICATIONS

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### CONFERENCES AND WORKSHOPS

- **M. Folschette**, L. Paulevé, M. Magnin and O. Roux: **Under-approximation of reachability in multivalued asynchronous networks**, in: *Proceedings of the fourth International Workshop on Interactions between Computer Science and Biology*, editors: E. Merelli and A. Troina, *Electronic Notes in Theoretical Computer Science*, Vol. 299, 33–51, Springer Berlin Heidelberg, June 2013, DOI 10.1016/j.entcs.2013.11.004.
  - **M. Folschette**, L. Paulevé, K. Inoue, M. Magnin and O. Roux: **Concretizing the process hitting into biological regulatory networks**, in: *Computational Methods in Systems Biology*, editors: D. Gilbert and M. Heiner, 166–186, Springer Berlin Heidelberg, October 2012, DOI 10.1007/978-3-642-33636-2\_11. Acceptance rate: 37%.
  - **M. Folschette**, L. Paulevé, K. Inoue, M. Magnin and O. Roux: **Abducting Biological Regulatory Networks from Process Hitting models**, in: *ECML-PKDD 2012 Workshop on Learning and Discovery in Symbolic Systems Biology*, editors: O. Ray and K. Inoue, 24–35, September 2012.
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### THEMATIC SCHOOLS

- **M. Folschette**: **Introduction to the Process Hitting and inference of its underlying Biological Regulatory Network**, *Advances in Systems and Synthetic Biology*, student session, 43–52, March 2013.
- **M. Folschette**: **Inferring Biological Regulatory Networks from Process Hitting models**, *Modeling and Verifying Parallel Processes*, student session, 91–97, December 2012.

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## PREVIOUS RESEARCH AREA: NUCLEAR FUSION

- A. Murari, D. Mazon, M. Gelfusa, **M. Folschette**, T. Quilichini and EFDA-JET contributors: **Residual analysis of the equilibrium reconstruction quality on JET**, *Nuclear Fusion*, Vol. 51, No. 5, April 2011, DOI 10.1088/0029-5515/51/5/053012.

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## WORK & RESEARCH EXPERIENCE

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March–May 2012	<b>PhD internship</b> at the <b>National Institute of Informatics</b> of Tokyo, in the <b>Inoue Laboratory</b> <i>Subject: Inferring a biological regulatory network from a process hitting model using ASP</i> <i>National Institute of Informatics (Tokyo, Japan) — Team: Inoue Laboratory</i>
April–Sept. 2011	<b>Master internship</b> in the <b>MeForBio</b> team at the <b>IRCCyN</b> Application of the Master subject in Coq, OCaml and Prolog <i>IRCCyN (Nantes, France)</i>
May–August 2010	<b>Mid-term studies internship</b> in the <b>Diagnostics</b> team at <b>EFDA-JET</b> (nuclear fusion research) <i>Subject: Statistical processing on magnetic coils measurements to bring out modeling flaws</i> <i>EFDA-JET: Joint European Torus (Culham Science Centre, UK)</i>

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## PERSONAL SKILLS

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Computing	<b>Languages:</b> OCaml, ASP, Coq, C, C++, Java, Maple, Matlab, SQL, Python, QBasic <b>Other skills:</b> Latex, Linux command line
Languages	<b>French:</b> Native speaker <b>English:</b> Fairly fluent, TOEIC with 870 points in 2009