

# Maxime Folschette

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

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)*

## 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.

### 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.

### 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.

## WORK & RESEARCH EXPERIENCE

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

## PERSONAL SKILLS

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