# Grégory Vaumourin

PhD Student at CEA-LIST and INRIA Bordeaux (France)

## Topic of Research

* Memory Systems : Cache Managemement Techniques for Energy Consumption Reduction and Cache Coherence Optimizations
* Compilation analysis and data locality optimization in GCC
* Data locality metrics for working set analysis
* Simulations and energy consumption modeling of the memory hierarchy in Gem5
* Emerging memory technologies

## Education

2013-Now

**PhD student** at CEA, Architecture and IC Design, Embedded Software Department – Saclay (France) and INRIA Bordeaux (France)  
*Subject :* Hybrid Memory Hierarchy and dynamic data management for embedded multi-core architectures

2013

**Internship at CEA-LETI** : Participation in the national research project [GRECO](http://greco.irisa.fr/) (GReen wireless Communicating Object) targetting low-power communicating networks.  
 Developpement in the [WSNet simulator](http://wsnet.gforge.inria.fr/) for an industrial use-case simulation of an energy harvesting wireless sensor network (EH-WSN)

2012-2013

**Computer Science** – Luleå University of Technology – Luleå (Sweden)  
Exchange program during 1 semester

2008-2013

**Computer engineering** at National Institute of Applied Science (INSA) – Rennes (France) Engineer’s degree (master/bachelor equivalent) in Electronic and Computer Science

## Scientific Publication

2016

**Specific Read-only Data Management for Memory System Optimization**   
Vaumourin G., Dombek T., Guerre A., Barthou D.  
*The 24th Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP’16)*

2016

**Co-simulating complex energy harvesting WSN applications: an in-tunnel wind powered monitoring example**   
Le Quang V., Didioui A., Vaumourin G., Bernier C., Broekaert F., Fritsch A.  
*International Journal of Sensor Networks (IJSNet)*

2014

**Specific read only data management for memory hierarchy optimization**   
Vaumourin G., Dombek T., Guerre A., Barthou D.  
*EWiLi’14, The 4th Embedded Operating Systems Workshop* [[pdf](https://hal.archives-ouvertes.fr/hal-01090218/document)]

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