

# Emmanuel Turlay

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## Personal Information

French citizen  
Born February 10, 1984

## Contact

@neutralino1  
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## Web developer (Ruby, Python, Javascript, HTML5, CSS3)

## Professional Experience

### releas.io, Paris, France

*Creator*

Development, design, conception, business, communication.

October 2012 - present

### Official.fm, Geneva, Switzerland

*Product manager*

Product UX design, redaction of detailed specifications stories, production of sketches and wireframes. Close follow-up of agile development team. Frequent interactions with company management.

October 2011 - October 2012

*Ruby on Rails developer and head of QA*

Technical design and development of new features in Ruby on Rails and JavaScript. Development of complete continuous integration process (unit testing, functional testing, selenium tests). Watchman for development best practices and database optimization. Supervision of QA technician.

November 2010 - October 2011

### National Institute for Subatomic Physics (NIKHEF), Amsterdam, The Netherlands

*Post-doctoral researcher*

Daily operation of the ATLAS detector, monitoring of detector performance, software development, reconstruction of physics objects, physics analysis and supervision of graduate students.

October 2009 - October 2010

### Laboratoire de l'Accélérateur Linéaire (LAL), Orsay, France

*Ph.D. student*

Reconstruction of physics objects, software development, physics analysis and theory calculations.

2006 - 2009

### Université Paris-Sud XI, Orsay, France

*Teaching assistant*

Taught C++ course for third year physics students and second year math students. Taught physics course for first year medical students.

2006 - 2009

## Education

2009 — **Ph.D. in Fundamental Physics at Université Paris-Sud XI, France**

Supersymmetry with decoupled scalars and reconstruction and identification of electrons in the ATLAS detector

2006 — **Masters in Fundamental Physics at Université Paris-Sud XI** (first of class)

2005 — **Exchange student at University of Glasgow, UK**

2003 — **Degree in Mathematics and Computing Science at Université Paris V, France**

2001 — **Scientific Baccalauréat at Lycée Paul Langevin, Suresnes, France**

**Technical Experience**

**Creation of [releas.io](#), a download card generator for record labels**

I created the service from A to Z. Based on a Rails 3 and Ruby 1.9.2 stack the app runs on Heroku with hosting on Amazon S3. Online payments with PayPal. A Facebook tab app for labels is also provided.

**Development of feature-rich music platform at [Official.fm](#)**

Development of new features, bug-fixing and code optimization in Ruby on Rails, JavaScript, SQL. Optimization of SQL requests and database architecture.

**Setup of Continuous Integration process at [Official.fm](#)**

Development of unit and functional Ruby on Rails tests, Selenium tests in Ruby and python. Setup of CI server with IntegriCity building service.

**Development of experimental side-projects at [Official.fm](#)**

Creation of SuiteUp!, a web app to manage manual browser test suites. Creation of Officiel, an experimental Google Docs-like web app. Currently working on Shelf, a virtual shelf to aggregate digital and physical records, books and movies from various APIs (Last.fm, Discogs, GoodReads...).

**Software developer in the ATLAS experiment**

Development of collision reconstruction and performance monitoring algorithms in C++ with a python configuration interface. Extensive use of the LCG worldwide grid computing infrastructure.

**Creator and developer of PiSharp**

PiSharp is an online practice room booking system for the CERN Music Club. It is implemented in python and sqlite. This application cannot be accessed from outside CERN.

**Creator and developer of the PyH python module**

PyH is an HTML rendering python module for easy and lightweight GUI-like web design.  
<http://code.google.com/p/pyh> | <https://launchpad.net/pyh>

**Creator and editor of [BlackNorthernBeat.net](#) and [ReviewPlaza.fr](#)**

Two music review websites based on home-made PHP CMS written from scratch. Both are now offline.

**Creation and maintenance of [TheLeagueMusic.net](#), [datafail.net](#) and [neutralino1.net](#)**

My bands websites.

**Creator of the susy  $\LaTeX$  package**

susy is a library to easily include supersymmetry related symbols with the  $\LaTeX$  typesetting framework.  
<http://ctan.org/tex-archive/macros/latex/contrib/susy/>

**Skills**

Agile methods	SCRUM, sprint planning, sprint retrospective, poker-planning, story estimation, velocity, Pivotal Tracker, GitHub...
Web development	Ruby on Rails, Sinatra, Django, HTML5, CSS3, Javascript, Backbone.js, SQL, Capistrano, TDD, unit testing, selenium tests, continuous integration, Amazon S3, Paypal integration...
Programming Environments	C/C++, Ruby, Python, shell, Fortran, PASCAL Unix/Linux (Scientific Linux, Fedora, Ubuntu), Windows, Mac OS X, world-wide computing grid environment
Software	Git, SVN, CVS, Emacs, Sublime Text, standard compilers and editors, Adobe Fireworks, Logic Pro
Music	Guitar, bass, drums, songwriting, recording, mixing and band management
Languages	French (native), english (fluent) and german (notions)

**Musical Projects**

**Neutralino One** **2011 - present**  
Solo project.  
<http://neutralino1.net>

**DATA?FAIL!** **2009 - 2011**  
Guitar, songwriting, production and management of Geneva-based punk-rock band. One EP released.  
<http://datafail.net>

**The League** **2006 - present**

in preparation.  
<http://theleaguemusic.net>  
Plus many others...

**Selected  
Publications**

**As main author**

*Supersymmetry with decoupled scalars and reconstruction and identification of electrons in the ATLAS detector.* Ph.D. thesis. Edition Universitaires Européennes 2009, ISBN 978-6131522567 | CERN-THESIS-2009-041.

*Properties of tracks in jets in proton-proton collisions at  $\sqrt{s} = 7$  TeV in the ATLAS detector.* ATLAS conference note for ICHEP 2010, ATLAS-COM-CONF-2010-063.

*Search for decoupled-scalars supersymmetry with the ATLAS detector.* ATLAS internal note 2009, ATLAS-COM-PHYS-2009-574.

*A measurement of the intrinsic hit efficiency of the ATLAS Semi-Conductor Tracker using  $pp$  collisions at  $\sqrt{s} = 900$  GeV.* ATLAS internal note 2010, ATLAS-COM-INDET-2010-036.

**As author**

*Expected performance of the ATLAS experiment : detector, trigger and physics* Book 2008, ISBN 978-92-9083-321-5, CERN-OPEN-2008-020.

*The ATLAS Experiment at the CERN Large Hadron Collider* Journal of Instrumentation 2008, JINST 3 S08003.

**Conference  
Presentations**

RuLu 2011 (ruby conference in Lyon, France) TOOLS 2007 (physics conf. in Munich, Germany), Rencontres de Moriond 2008 (La Thuile, Italy), Physics at LHC 2008 (physics conf. in Split, Croatia) and others.