

# Florian Miconi

## Curriculum Vitae

23 rue du Loess  
67037 Strasbourg cedex 2 , France  
☎ +33(0)6.77.05.00.58  
☎ +33 (0)3.88.10.63.41  
✉ [florian.miconi@iphc.cnrs.fr](mailto:florian.miconi@iphc.cnrs.fr)



## Education

- 2009–Now **PhD in particle physics**, *Université de Strasbourg – Institut Pluridisciplinaire Hubert Curien.*
- 2007–2009 **Master's degree in subatomic physics**, *Université de Strasbourg, Magna cum laude.*
- 2004–2007 **Bachelor's degree in physics**, *Université Henri Poincaré, Nancy, Magna cum laude.*

## PhD Thesis

- Title *Search for a standard Higgs boson of mass below 140 GeV/c<sup>2</sup> with the DØ experiment at the Tevatron.*
- Supervisor Isabelle Ripp-Baudot
- Description This work focused on :
- The development of a dedicated multivariate analysis to reduce the  $W(Z)+b\bar{b}$  background, irreducible by the standard b-tagging method.
- The development of an algorithm to recover a part of the radiation from the Higgs in the 3 jets channel, improving the reconstruction of its mass.
- The optimization of the final multivariate discriminant of the WH analysis.
- And various studies on b-tagging (comparison of the b-tagging efficiency vs time and luminosity) and on the overall analysis (comparison of previous set of data vs new one, adding new reweighting and corresponding systematics uncertainties).
- Key words Particle physics, Higgs, DØ, Tevatron, b-tagging, multivariate analysis, neural network, decision tree.
- Skills involved Large dataset handling, statistical approach, C++ developement, teamwork.
- Shifts Tracker shifts, SAM (data handling system at Fermilab) and data quality shifts.

## Experience

### Student jobs

- 2005–2008 **Visiting teacher**, Physics & Maths for high school students.  
Monitoring of the student work, help for homework. Preparation for the baccalaureate
- 2008–2009 **Visiting teacher**, *Complétude*, Strasbourg, Physics & Maths for high school students.
- 2007–2009 **Computer home repair / Visiting teacher**, *Orange assistance*, Strasbourg, Training in computer use, office automation software, internet. Network and hardware fixing.

### Teaching at the University of Strasbourg

2009–Now **Instructorship**, *Université de Strasbourg*, Classical Mechanics, Programming (C/C++) and Mathematics for first year college students.

---

## Languages

French **Native tongue**  
English **Fluent**  
Italian **Basics**

*Lot of time spent abroad, especially in USA*

---

## Computer skills

Operating system MacOS, Windows, Unix/Linux  
Software Microsoft Office, Latex, iWork  
Programming Shell, C/C++, Python, Html  
Physics tool Root, Geant4

---

## Interests

Reading Sci-fi novels  
Sport Martial arts, running, rollerblading  
Music Playing guitar  
Dance Salsa dancing

---

## Misc.

First aid certificate  
Driving licence

---

## References

### **Dr. Isabelle Ripp-Baudot**

IPHC, 23 rue du Loess BP 28  
F-67000 Strasbourg - France

Phone: +33(0)-388-106-375

Email : ripp@in2p3.fr

### **Dr. Sebastien Greder**

IPHC, 23 rue du Loess BP 28  
F-67000 Strasbourg - France

Phone: +33(0)-388-106-649

Email : greder@in2p3.fr

---

## Meetings attended

- HCP 2011, Paris, France, November 14-18, 2011 (Poster contribution and proceeding)
- Dø workshop, Princeton, USA, June 12-17, 2011
- Dø France meeting , LPNHE, Paris, May 30-31, 2011 (Oral contribution)
- Lake Louise Winter Institute, Lake Louise, Canada (Alberta), February 14-20, 2011 (Oral contribution)
- Dø collaboration meeting , Fermilab, USA, November 7-12, 2010 (Oral contribution)
- European School of High Energy Physics, Raseborg, Finland, June 20- July 03, 2010 (Poster contribution)
- Dø workshop, Marseille, France, July 25-01, 2010

- DØ France meeting , IPN, Lyon, May 3-4, 2010 (Oral contribution)
- IPHC PhD Student Day, Strasbourg, France, February 12, 2010 (Oral contribution)
- DØ collaboration meeting, Fermilab,USA, February 02-07, 2010
- DØ France meeting, LAL, Orsay, 26-27 Novembre 2009 (Oral contribution)

## Communication / Publications

- "**Search for WH associated production at DØ Tevatron**" F. Miconi, HCP 2011, Paris, France, November 14-18, 2011, arXiv:1201.6026v1 [hep-ex]
- "**Jet Energy Resolution**" F. Miconi, DØ France meeting , LPNHE, Paris, May 30-31 2011
- "**Experimental aspect of low mass Higgs search at DØ**" F. Miconi Lake Louise Winter Institute, Lake Louise, Canada (Alberta), February 14-20, 2011
- "**b-tagging dependance with luminosity and time** » F. Miconi, DØ collaboration meeting, Fermilab,USA, November 7-12, 2010
- "**Search for a standard Higgs Boson of mass below 140 GeV/c<sup>2</sup> with the DZero experiment at the Tevatron** » F. Miconi, European School of High Energy Physics, Raseborg, Finland, June 20- July 03, 2010
- "**Tests of Ilb-3 Dataset (WH electron channel)**" F. Miconi, DØ France meeting , IPN, Lyon, May 3-4 2010
- "**La physique des particules auprès des collisionneurs**" D. Bodin, C. Ferro, M. Karim, A. Maire, **F. Miconi**, IPHC PhD Student Day, Strasbourg, France, February 12, 2010
- "**Implémentation des variables du discriminant Vbb/Hbb dans l'analyse WH**" F. Miconi, Réunion DØ France, LAL, Orsay, 26-27 Novembre 2009