## João Carlos Arnauth Pela

CONTACT Information Trav. do Pregoeiro n°24, 3° Esq. 1600-588 Lisboa

Portugal

CITIZENSHIP

Portuguese

RESEARCH INTERESTS

Particle Physics, High Energy Physics, Nuclear Fusion, Detector Physics, Instrumentation

**EDUCATION** 

## Instituto Superior Técnico, Lisboa, Portugal

M.S., Engineering Physics and Technology (expected graduation date: June 2010)

- Current grade average of 17.1 (in 20)
- Thesis Topic: Extra Dimensions Searches at the Large Hadron Collider
- Supervisor: Professor João Varela
- Co-Supervisor: Michele Gallinaro
- Area of Study: Experimental Particle Physics

## B.S., Engineering Physics and Technology, Feb 2009

- With final grade of 14 (in 20)
- Engineering specialization (emphasis on Instrumentation)

#### ACADEMIC EXPERIENCE

#### Instituto Superior Técnico, Lisboa, Portugal

Graduate Student

Feb 2009 to present

Voice: (351) 916486498

E-mail: joaopela@gmail.com WWW: www.nfist.pt/~pela

Undergraduate Student

September 2002 to February 2009

### NFIST (IST Physics Students Association) Member September 2002 to present

- Development and implementation of School Registration Web Application for *Physics Week 11* and *Physics Week 12* at IST
- Development and implementation of Members Management Application for NFIST
- Development and implementation of an integrated system of mailing lists, library and forum
- Responsible for many activities over the years
- Responsible and developer of many activities Web Sites (Social activities and outreach).

# National Physics Students Meeting 2008

- Member of the organization committee
- Development and implementation of all the website's applications, including Student Registration, Forum, News Portal.

#### Publications

CMS Exotica PAG: E. Barberis, O. Boeriu, J. Brooke, G. Bruno, J. Chen, J.P. Chou, K. F. Chen, A. De Roeck, S. Eno, M. Gallinaro, S. Harper, C. Hill, G. Landsberg, M. Mozer, J. Pela, S. Rappoccio, A. Rizzi, K. Rossato, P. Rumerio, A. Safonov, C. Shepherd-Themistocleous, "Data Flow for the CMS Exotica Group for Early Running" CMS AN - 2009/XX (Under Preparation)

 P. Ribeiro, M. Gallinaro, M. Kazana, J. Pela, J. Varela, "Discovery potential for Universal Extra Dimensions in the four leptons final state in pp collisions at √s = 14 TeV" CMS AN - 2008/035 (Pre-approved waiting Review Committee Final Approval)

### Conference Presentations

PASC Winter School 2008 - Discovery potential for Extra Dimensions in the four lepton final state at the LHC

## SCIENTIFIC PROFESSIONAL EXPERIENCE

Laboratório de Instrumentação e Física Experimental de Partículas, Lisboa, Portugal

Junior Researcher for the CMS Experiment at the LHC 2007 to present

- Coordinator and developer of the EXOTrilepton Exercise for CMS Exotica group
  as a part of 2009 October Exercise with the objective of testing LHC Data Flow
  Model
   Oct 2009
- Worked on 16 shifts as CMS-ECAL Barrel, Endcaps and Safety Shifter, during the CRAFT 2009 (cosmics) program.
   Aug 2009
- Design and implementation of method for studying potential for Universal Extra Dimensions with a four lepton final state
   Dec 2008 to present
- Design and implementation of method for studying  $t\bar{t}$  in semileptonic and fully leptonic with hadronic  $\tau$  channels Set 2007 to Dec 2008

## Centro de Fusão Nuclear, Lisboa, Portugal

Experimental Physist

2003

• Helped to design a test PCB Board to implement the new system of slow control of the ISTOK Tokamak Fusion Reactor based in CAN technology

## OTHER PROFESSIONAL EXPERIENCE

Web Designer, Archica-Us (currently under construction),

2009

- Design of the graphical interface
- Design of site's application

Web Designer, SER — Sereno Estado Relaxamento (currently offline), 2007

- Relocation of the website
- Re-design of the graphical interface
- Update of site's content

Judo Teacher, Externato Champagnat,

2006-2007

Judo Teacher, Ginásio Leão das Furnas,

2003-2004

Counselor in Summer Camp, Junta de Freguesia de Benfica,

2002

- This Summer Camp was included in the Férias Desportivas program
- During the Camp was responsible for the Judo Classes

SERVICE Sysadmin, Lisboa Racket Center,

2008-2009

#### LANGUAGE SKILLS

#### Portuguese

• Native Speaker

### English

- Excelent comprehension of spoken and written language
- 1st language of choice during undergraduate studies (7 years of classes)
- Language used in work place for since 2007

#### French

- Generic comprehension of spoken and written language
- 2nd language of choice during undergraduate studies (3 years of classes)

## Spanish

• Generic comprehension of spoken and written language

TECHNICAL SKILLS Extensive hardware and software experience in networking and information technology

Programming: C, C++, HTML, PHP, MySQL, JAVA, Fortran 95, Mathematica, As-

sembler, CVS, UNIX shell scripting

Database: MySQL, SQL

Web Oriented: HTML, PHP, CSS, Javascript, XML

System Administration: Shell Scripting (Bash, SH Shell), CVS

Applications: LaTeX, Microsoft Office, Open Office, and other common productivity packages for Windows and Linux platforms

Operating Systems: Linux (administration knowledge), Microsoft Windows XP/2000/Vista/7

Driver's Licence for motorcycle (all A class) and cars (B class)