João Carlos Arnauth Pela

CONTACT INFORMATION	Trav. do Pregoeiro nº24, 3º Esq. 1600-588 Lisboa Portugal	*Voice:* (+351) 926357397 *E-mail:* joaopela@gmail.com *WWW:* www.nfist.pt/~pela

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**

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 Site (Social Activities, 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, etc

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 $\sqrt{s}$ = 14 TeV"* CMS AN - 2008/035 (<u>Pre-approved</u> 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 τ 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, designed comercial web sites for 2 small companies
- Judo Teacher, during a period of 2 years in two separeted schools
- Sysadmin, for a local sports club during 2 years
- Counselor in Summer Camp, during a single summer (also supported Judo classes in that camp)

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++, JAVA, Fortran 95, Mathematica, Assembler
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)