




WORK EXPERIENCE

- Oct. 2013 – present** **Associació Quadrivium per la Divulgació (non-profit)**
Founder and Secretary Science outreach activities. Mentoring of communication skills among young scientists.
<http://www.quadrivium.cat/> 
- June 2016 – Nov. 2016** **Better Consultants**
IT consultant HOST analyst and developer at Banc Sabadell.
PMO Design and Deployment Program Management (Banc Sabadell).
- Nov. 2015 – June 2016** **Editorial Vicens Vives**
Technical Editor Update of high school physics textbooks to L.O.M.C.E. education law.
- Oct. 2011 – Sept. 2015** **University of Barcelona**
Predoctoral researcher Project on History of the Quantum Theory (early 20th century).
Science outreach conferences and interviews (TV3 and RAC1).
Teaching assistant Introductory and advanced courses in Physics, Maths, Engineering and History of Science.
- June 2009 – Sept. 2015** **Encontres amb el Tercer Cicle**
Coordinator and logistics Management of periodic event with the aim to establish a scientific network between predoctoral researchers and undergraduate students.
Leading a 5–10 people team. 50+ invited speakers. Audience reach of ~1500 students.
<http://www.ub.edu/fisica/encontres> 
- Oct. 2009 – Oct. 2011** **European Organization for Nuclear Research (CERN)**
Predoctoral researcher Project LHCb: Simulation of experimental particle physics. Big data and statistical analysis.
Project CLIC: Assessment of detector design and simulation. Hardware simulation.
- May 2005 – July 2010** **Centre Acadèmic Pié**
Founder and manager Private tuition center for students with learning difficulties.
Levels: elementary school, high school, university.
Coordination of a team of 8–12 teachers. 150–200 students per academical year.
<http://academia.pie.cat> 

EDUCATION BACKGROUND

- Dec. 2016 – June 2017** **Chartered Financial Analyst, CFA Institute**
2017 Level I Candidate in the CFA Program
- Oct. 2009 – Sept. 2015** **University of Barcelona, Dept. of Fundamental Physics**
Ph.D. in History of Quantum Physics. GPA: Excellent
- Sept. 2011 – June 2012** **Autonomous University of Barcelona**
B.Sc. in Applied Statistics. Completed one course with excellent marks. Resigned.
- Oct. 2009 – July 2010** **University of Barcelona**
M.Sc. in Astrophysics, Particle Physics and Cosmology. Specialization in Particle Physics and Gravitation. GPA: 9.1/10 (with Honors)
- Sept. 2004 – June 2009** **University of Barcelona**
B.Sc. in Physics. GPA: 3.21/4 (with Honors)

PROGRAMMING SKILLS

Python

- ◇ Good knowledge of language, framework and libraries.
- ◇ Wide use for simulation of physics and hardware.
- ◇ Data management and statistics (LHCb project, CERN).

Other languages and platforms:

- | | |
|-----------|------------------|
| » SPSS | » C++ |
| » R | » SQL |
| » Fortran | » GRID computing |
| » ROOT | » JIRA |
| » Matlab | » Clarity |

Office suite

- ◇ Advanced skills in MS Word and MS Excel (and opensource equivalents).
- ◇ Good knowledge of MS Access.

IBM Mainframe

- ◇ COBOL, HOST, JCL, DB2, BATCH, SQL.

Java

- ◇ Good knowledge of language and framework.
- ◇ Use for simulation at CLIC project at CERN.
- ◇ Android applications.

Web design

- ◇ Advanced knowledge of web design languages:
 - » HTML5
 - » JavaScript
 - » CSS3
 - » Ruby (beginner)
- ◇ Static and responsive web pages.
- ◇ See examples in:
 - <http://www.ub.edu/fisica/encontres>
 - <http://www.quadrivium.cat/>

Operating systems

- ◇ Excellent knowledge of *Linux* and *Windows*.
- ◇ Good knowledge of *Mac*.

RELEVANT PUBLICATIONS

- ◇ B. Pié & E. Pérez, The historical role of the Adiabatic Principle in Bohr's quantum theory. (2016)
- ◇ E. Pérez & B. Pié, Bohr and Ehrenfest: transformations and correspondences in the early 20's. (2016)
- ◇ B. Pié, L'experiment d'Stern i Gerlach en el seu context històric (PhD thesis). (2015)
- ◇ B. Pié & E. Pérez, L'àtom d'Schrödinger. (2014)
- ◇ CERN Yellow Report CERN-2012-03
- ◇ For a complete list of contributed publications see: https://www.researchgate.net/profile/Blai_Valls

ONLINE COURSES

- April 2016 Corporate Finance Essentials (*IESE*)
- Dec. 2015 Strategic Business Analytics (*ESSEC & Accenture*)
- April 2014 Programming Applications for Android (*Univ. of Maryland*)
- Nov. 2013 Writing in the Sciences (*Stanford University*)
- April 2013 Introduction to Computer Networks (*Univ. of Washington*)
- June 2012 Cryptography I (*Stanford University*)
- Dec. 2008 Writing techniques (*Univ. of Barcelona, IL3*)

AWARDS AND HONORS

- Feb. 2014 Voted *Best Presentation* in JIPI 2014 conference (Barcelona, Spain)
- Jan. 2010 Awarded the *Extraordinary Bachelor Prize* by the University of Barcelona
- Jul. 2008 CERN Summer Student
- April 2004 *CIRIT Prize to foster science among youth*, Generalitat de Catalunya
- Oct. 2004 Honor Mention in the *XV Spanish National Physics Olympiad (Vigo, Spain)*

LANGUAGES

- Catalan and Spanish**
Native
- English**
TOEFL 112/120
- German**
B1
- French**
A2

OTHER INTERESTS

- ◇ Press
- ◇ Reflex photography
- ◇ Writing (essay & poetry)
- ◇ Water-polo
- ◇ Argentinian tango