




29<sup>th</sup> April, 2016

## WORK EXPERIENCE

- Nov. 2015 – present** **Editorial Vicens Vives**  
*Technical Editor* Update of high school physics textbooks to L.O.M.C.E. education law.
- Oct. 2013 – present** **Associació Quadrivium per la Divulgació (non-profit)**  
*Founder and Secretary* Fostering of scientific knowledge in general audiences.  
Mentoring of communication skills among young scientists.  
<http://www.quadrivium.cat/> 
- Oct. 2011 – Sept. 2015** **University of Barcelona**  
*Predoctoral researcher* Project on History of the Quantum Theory (early 20<sup>th</sup> century).  
Science outreach conferences and interviews (TV3 and RAC1).  
*Teaching assistant* Introductory and advanced courses in Physics, Mathematics, 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. More than 50 speakers invited. Audience reach of more than 1500 students.  
<http://www.ub.edu/fisica/encontres> 
- Sept. 2014 – Dec. 2014** **University of Bordeaux**  
*Visiting researcher* Collaboration in project on philosophy of science: *The concept of time in physical theories*.
- 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://www.actiweb.es/centreacademicpie> 

## EDUCATION BACKGROUND

- 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 at LHCb project at CERN.

### Other languages and platforms:

- |                  |                         |
|------------------|-------------------------|
| » <i>SPSS</i>    | » <i>Matlab</i>         |
| » <i>R</i>       | » <i>C++</i>            |
| » <i>Fortran</i> | » <i>SQL</i>            |
| » <i>ROOT</i>    | » <i>GRID computing</i> |

### Operating systems

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

### 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/>

### Layout design

- ◇ Adobe InDesign

## 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
- ◇ More than 100 publications. For a complete list see: [https://www.researchgate.net/profile/Blai\\_Valls](https://www.researchgate.net/profile/Blai_Valls)

## ONLINE COURSES

- Ongoing* Corporate Finance Essentials (**IESE**)
- Dec. 2015* Strategic Business Analytics (**ESSEC & Accenture**)
- April 2014* Programming Applications for Android (**Univ. of Maryland**)
- April 2013* Introduction to Computer Networks (**Univ. of Washington**)
- Nov. 2013* Writing in the Sciences (**Stanford University**)
- 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
- ◇ Tango dancing