

Jaime Dawson

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Experience

- April 2008 **Search for θ_{13} with Double Chooz,**
-present *Current position: CNRS CR-1*
Previously: Postdoctoral Researcher from April 2008 - October 2012,
Laboratoire AstroParticule et Cosmologie, Paris,
Major contributor to the development of the Neutrino Data Acquisition system being responsible for both hardware and the VME-part of the software (waveform digitisers and Trigger system).
Large on-site presence for both near and far detectors for the installation of the electronics and acquisition system, and commissioning. Currently responsible for the installation/commissioning of electronics and online systems for DC Near detector. Participant in the remote operation of the detector as on-call data acquisition expert.
Active participant of the sub-group Neutron-TPC, partnership between APC and MIT DC members. Involved in onsite hardware activities, in particular install/running of Neutron-TPCs in the DC laboratories.
Previous analysis activities, in particular the understanding of observed energy non-linearities and the radioactive background..
- June 2005 **Neutrinoless Double Beta Decay with COBRA,**
-March 2008 *Research Fellow, University of Sussex, UK,*
Coordinator of research and development effort on CdZnTe (Cadmium Zinc Telluride) Co-Planar Grid (CPG) semiconductor detectors. Planning of experimental programme and supervision of students. Writing of grant proposals.
Major contributor to the fabrication, delivery, installation and maintenance of the present COBRA experiment (64-array) currently running in LNGS.
Analysis focused on energy calibration and understanding of backgrounds.
- May 2003 **Direct Detection of WIMP Dark Matter with ZEPLIN III,**
-June 2005 *Research Associate, Imperial College London, UK,*
Design and fabrication of major systems for the ZEPLIN III experiment. Responsible for the thermal control of the detector, trigger electronics, data analysis and slow control.
Developed simulations of two-phase xenon detectors including electronics. Analysed simulated data to predict the sensitivity of experiment to WIMP dark matter.

Education

- Oct. 1999 - **Ph.D.**, *ZEPLIN III: A Two-Phase Xenon WIMP Detector*,
July 2003 Advisor: Prof. Timothy J. Sumner, Imperial College, London.
Oct. 1995 - **M.Sci. Astrophysics**, *First Class*, University College, London.
June 1999

Teaching Experience

I have been involved in undergraduate teaching from 2001 to the present; as a laboratory demonstrator for all undergraduate years, as a course assistant teaching in workshop classes, and as a supervisor for undergraduate and postgraduate projects. I have experience with organising and lecturing undergraduate courses, having lectured Nuclear and Particle Physics to 3rd year undergraduates and postgraduates. I was also a substitute lecturer for an undergraduate Electromagnetism course. I provide support and assistance to the PhD students within my research groups and collaboration etc. I currently supervise one PhD student, Adrien Hourlier.

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| 2014 | supervisor | <i>Allie Hexley - summer internship for MIT undergraduate student (MISTI-FRANCE)</i> |
| 2013-present | supervisor | <i>Adrien Hourlier - PhD student</i> |
| 2013 | supervisor | <i>Adrien Hourlier - NPAC Masters internship</i> |
| 2013 | supervisor | <i>Xavier Hubbard - summer internship for MIT undergraduate student (MISTI-FRANCE)</i> |
| 2011 | supervisor | <i>3rd year project student</i> |
| 2010 | supervisor | <i>2nd year project student</i> |
| 2009 | supervisor | <i>2nd year project student</i> |
| 2007-2008 | lecturer | <i>3rd year Nuclear and Particle Physics 1 course (lecturing, website and exam writing) and substitute lecturer for Electromagnetism for foundation year Engineers</i> |
| 2007 | supervisor | <i>two 4th year project students and one MSc student</i> |
| 2006-2007 | lab demonstrator | <i>2nd year electronics and 1st year experimental physics</i> |
| 2006 | supervisor | <i>3rd year project and summer student</i> |
| 2005-2006 | course assistant | <i>1st year electromagnetism</i> |
| 2004-2005 | lab demonstrator | <i>3rd year experimental physics</i> |
| 2004 | supervisor | <i>two summer project students.</i> |
| 2003-2004 | lab demonstrator | <i>2nd year experimental physics</i> |
| 2003 | supervisor | <i>1st year astronomy project students</i> |
| 2002-2003 | lab demonstrator | <i>2nd year C++ computing</i> |
| 2001-2002 | lab demonstrator | <i>1st year C++ computing</i> |

Organisation/Administration

- 2015-present Responsible for Neutrino group
2014-present Member of APC laboratory council 'Conseil du Laboratoire'
2014 Member of Local Organising Committee for NNN2014

- 2012-present Deputy-responsible for the Neutrino group
- 2010-2012 Seminar organiser for Neutrino group
- 2009 Member of Local Organising Committee for lowNu, 'Champagne Neutrino' (Reims)

Other Skills

Simulation Software

Well versed in GEANT 4, ANSYS, Quickfield and SRIM.

Programming and Analysis Software

Capable programmer in ADA, C++, HTML, Bash, Fortran, Labview and ROOT.

Training Courses

Attended Health and Safety training courses for working in underground laboratories; Boulby mine and LNGS. These included first aid, emergency procedures, legal responsibilities, and conducting risk assessments.

Attended University of Sussex course on Intellectual Property Rights.

Conferences and Seminars

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| 2014 | ANT2014 (Los Angeles) | <i>Organic Liquid TPCs for Neutrino Physics</i> |
| 2014 | SUSY2014 (Manchester) | <i>Review of results from the reactor neutrino experiments</i> |
| 2012 | GANIL (CAEN) | <i>seminar on the Double Chooz experiment</i> |
| | LAL (Paris) | <i>seminar on the Double Chooz experiment</i> |
| 2011 | Rencontres de Physique de la Vallee d'Aoste (La Thuile) | <i>presentation on the Double Chooz experiment</i> |
| | CPPM (Marseille) | <i>seminar on the Double Chooz experiment</i> |
| | IPNL (Lyon) | <i>seminar on the Double Chooz experiment</i> |
| | LPC (Clermont) | <i>seminar on the Double Chooz experiment</i> |
| 2010 | TPC Symposium (Paris) | <i>replacement speaker for Indian Neutrino Observatory</i> |
| | IPHC (Strasbourg) | <i>seminar on the status of the Double Chooz experiment</i> |
| | IPNL (Lyon) | <i>seminar on the status of the Double Chooz experiment</i> |
| | Workshop on the European Strategy for Future Neutrino Physics | <i>participant</i> |
| | FJPPL (Tsukuba) | <i>joint presentation on the Double Chooz experiment</i> |
| 2008 | GDR (Marseille) | <i>presentation on the Double Chooz experiment</i> |
| | NOW (Otranto) | <i>participant</i> |
| 2007 | ASPERA Roadmap (Orsay) | <i>presentation on the COBRA experiment</i> |
| 2006 | Imperial College London | <i>seminar on the COBRA experiment</i> |
| | LRT (Modane) | <i>presentation on backgrounds for the COBRA experiment</i> |
| 2005 | ICATPP (Como) | <i>presentation on the results from the COBRA experiment</i> |

- 2002 **DARK (Cape Town)** *presentation on the ZEPLIN III experiment*
2001 **TAUP (LNGS)** *poster presentation on the ZEPLIN III experiment*

Public Understanding of Science

- 2013 **Chooz PowerStation Open Weekend.**
2008 **Talk on 'Neutrinos'**, *Highgate Physics Society*, Highgate School, London.
2004 **Talk on 'The Search for Dark Matter'**, *Highgate Physics Society*, Highgate School, London.
2003 **Televised interview at the Boulby mine**, *The Royal Institution's Christmas Lectures*.
2002-2005 **Short talks on 'Dark Matter'**, *visiting students and Women In Science*, Imperial College London.