# Curriculum Vitae (Shortened)

Jorge do Carmo António, Teacher of Physics and Chemistry since 1992

(For the Portuguese Physics Society)

# Summary:

Born on the 19th of April 1966 (52 years old) in the small village of Água das Casas in Fontes, Abrantes, as the first of five children of Maria do Carmo Rosa and José de Jesus António, local farmers. Completed primary school at Matagosinha school, two kilometres far, and the secondary lower school in Sardoal, fifteen kilometres far. Secondary high school was completed studying at night as a working student in 1986 at Secondary School Gil Vicente, in Lisbon. The Degree in Physics (Teaching) was completed at the University of Beira Interior, as a part-time worker with a scholarship granted by the Ministry of Education. Afterwards, while working as a teacher at the city of Portalegre, concluded post-graduation in Astronomy Teaching at the Sciences College of the University of Oporto. At the same College enrolled in the Masters of Astronomy Teaching without concluding the Thesis "Origin and Evolution of the Universe", under the guidance of Dr. Jorge Paulo Maurício de Carvalho.

All the relevant information concerning the teaching activities as well as the promotion of science and scientific culture is presented below.

# I. Personal information

Name: Jorge Surname: Carmo António Nationality: Portuguese Address: Rua dos Santos, n.º 13, Água das Casas, Fontes, Abrantes (2230-831 Fontes), Portugal Mobile phone: + 351 966 502 648 Email: jorge.antonio2007@gmail.com Website: www.emtornodaciencia.blogspot.pt

# II. Education and Academic training: Certificates

December/2016Certificate of Professional Trainer (accreditation registry CCPFC/RFO-37653/16) by the<br/>Scientific Council of Teacher Training CCFCP, Braga, Portugal;September/2006Post-graduation in Astronomy Teaching, Science College, University of Oporto;

**July/1995** Degree in Physics (Teaching), University of Beira Interior, Portugal.

# III. Professional activity (teaching and positions held)

- Academic subjects: Physical and Natural Sciences (Physics, Chemistry, Biology and Geology) and Natural Sciences; Project CAFE (Learning and Educational Training Centre), Same, East Timor, 2018.
- Physics, at the University D. Boaventura in East Timor (UBTL), on Saturdays as part of the Community support programme associated with the project CAFÉ, Same, East Timor, 2018.
- Professional training advisor (alongside teacher Dina Abel, Physical and Natural Sciences), Project CAFE, East Timor, 2018;
- Organization of training courses for Timorese teachers, project CAFÉ, East Timor, 2018;
- Since 1992, teacher of Physics and Chemistry, , in several places in Portugal: Tortosendo (Covilhã), Fundão, Idanha-a-Nova, Alter do Chão, Portalegre e Montijo, from the years 7 to 12 (regular studies), as well as professional, technological and vocational courses, alternative curricular studies (PCA) and Integrated Educational and Training Programme (PIEF).
- Coordinator and Advisor of primary school teachers (Portalegre), for the promotion of Experimental Sciences as part of the activities *Projeto Ciência Viva 6*, during the years 2005-2010.

- Coordinator of *science projects and clubs* in different schools, as means to develop experimental actions promoted by the Agency *Ciência Viva*;
- Coordinator of the project TRENDS/PROF2000, within ICT and e-Learning (distance learning) at school EB 2,3 de João Franco (Fundão), in the years 1997-2002.
- Coordinator of Department, EB 2,3 de João Franco (Fundão) and Agrupamento n.º 2 of Portalegre;
- ICT coordinator, at Agrupamento n.º 2 of Portalegre, 2006;
- Coordinator of the Tecnological Plan of Education, at school EB 2,3/S Padre José Agostinho Rodrigues, in Alter do Chão, in the years 2007-2009;
- Professional Training Advisor Training in a work context, years 11 and 12; Agrupamento de Escolas do Bonfim, Portalegre;
- Class director in different schools;

# IV. Promotion, coordination and development of projects and activities (most recent)

- Nov.2018Week of Sciences / "Os Dias da Ciência": Experimental activities involving all students (about<br/>600 students); Learning Centre and Educational Training, Same, East Timor.
- April.2018 Videoconference with ESO (South European Observatory, Atacama desert, Chile), with the support of the astrophysicist Hugo Messias; project CAFÉ, Same, East Timor.
- 24.Nov.2017 **Experimental activities and Poetry:** "*Poesia e Ciência, Ciência e Poesia"*: António Gedeão/Rómulo de Carvalho, National Day of Scientific Culture 2017; Montijo;
- 2017-2018 **Project** "*Missão X*" Training with an astronaut (ESA / NASA), Montijo;
- 2016-2017 **Play/Dramatization** with students of year 7: staging of "Galileo's Life in (more than) two acts" to the school community, National Day of Scientific Culture, 24<sup>th</sup> November 2016; Agrupamento de Escolas de Montijo, Montijo.
- 2016-2017 Club Eureka/Club Ciência Viva, Agrupamento de Escolas de Montijo;
- 2015-2016 Club Eureka/Club Ciência Viva, Agrupamento de Escolas de Montijo;
- 2015 a 2017 Project "Photonics Explorer", International Year of Light, Montijo;
- 2013 a 2015 Project/Competition "A Beam Line For Schools" (CERN), (Portalegre);
- 2013 a 2015 Involvement in **International Masterclasses of Particle Physics**; Instituto Superior Técnico (IST) /Agrupamento de Escolas de Bonfim Portalegre;
- 2009 a 2011 **Project** *Escola-Eletrão* (environmental education), Agrupamento nº2 de Portalegre.
- 2002 a 2011 **Clubs:** Club Eureka, Club of Physics and Chemistry, Club of Sciences, Club of Environment and Club Ciência Viva; Agrupamento n.º2 de Portalegre.
- 1992 a 2016 Organization of school trips: Pavilhão do Conhecimento, Museum of Science, Instituto Superior Técnico (IPFN, Lasers' Laboratory, Sound Laboratory), CERN, Museum of Electricity, Thermoelectric Plant in Pego, Cellulosis Factory – Vila Velha de Ródão, RENOVA Factory, Instituto Português do Mar e da Atmosfera (IPMA), Ciência Viva Centre in Constância, Exploratory – Coimbra, *Visionarium* (Santa Maria da Feira), Tecnology and management College in Portalegre and University of Beira Interior, among others.

# V. Coordination and Organization of Lectures, Conferences and Seminars (most recent): promotion and dissemination of science and scientific culture

- Jan. to May.17 Science Meetings in Montijo: a total of five conferences in different fields of Sciences; activity promoted by the *Agrupamento de Escolas do Montijo* with the support of the city council of Montijo, 2017
- June.2017 Videoconference in the classroom "À Descoberta de Novos Mundos", with the topic exoplanets (Planets outsider the solar system) with the astrophysicist Nuno Santos, responsible for the team that recently achieved different findings in this field of science; AE Montijo;
- Nov.2016 Videoconference in the classroom "*Ao Encontro da Galáxia CR7*" with the participation of the team leader responsible for this finding, the astrophysicist David Sobral; AE Montijo;
- Oct.2016 "Missões Espaciais", Rui Barradas Pereira, World Space Week 2016;
- Mar.2016 Lecture "*Qual é a luz mais brilhante?*", with Dr. Gonçalo Figueira, from the Plasma and Nuclear Fusion Institute, Instituto Superior Técnico;
- Feb.2016 Co-organization of the conference "Ignite Astro Tour Montijo", with the participation of ten scientists from the Astrophysics and Space Sciences Institute, Montijo, Portugal;
- Oct.2015 "*Como Pensam os Cientistas?*", with the scientist Hugo Messias, as part of the World Space Week 2015, Montijo, Portugal;
- Jan.2015 "*Diferentes Olhares sobre o Universo*", with Mário Pimenta (Director of LIP), Agrupamento de Escolas do Bonfim (AE Bonfim), Portalegre, Portugal;
- Nov.2014 *"Lasers e Fusão Nuclear"*, with Bruno Gonçalves (Director at IPFN-IST) and Gonçalo Figueira (Director of the group *Lasers Intensos* – IST); AE Bonfim;
- Jan.2014 "*Ao Encontro do Infinito",* with Pedro Abreu, investigator at LIP/IST and CERN, Agrupamento de Escolas de Bonfim, Portalegre;
- Nov.2013 "A Importância da Ciência no Contexto das Descobertas Novas Descobertas na Física das Partículas", João Seixas, investigator at LIP and CERN.

# VI. Prémios e Reconhecimentos

- (1) Jury member for the project *"FCT NOVA Challenge"*, Sciences and Technology Collegy of Universidade Nova de Lisboa, June 2018. The long distance evaluation and implied communication were developed with the use of a digital platform and the different ICT methodology available.
- (2) Jury member for the project *"FCT NOVA Challenge"*, Sciences and Technology Collegy of Universidade Nova de Lisboa, May / June 2017.
- (3) Jury member for the project *"FCT NOVA Challenge"*, Sciences and Technology Collegy of Universidade Nova de Lisboa, May / June 2016.
- (4) Testimony in the homage and presentation of the Great Award *Ciência Viva* to the scientist *Manuel Paiva*, *Auditório José Mariano Gago*, Pavilhão do Conhecimento, November 2015.
- (5) Commendation by the Educational Council, Escola EB 2,3 de *João Franco*, Fundão, Portugal, 2001.

# VII. Publications

- (1) "A Vida de Galileu em (mais de) dois Atos", Iberian Encounter of Physics, Santiago de Compostela, Spain, July 2017;
- (2) "Motivar para a Ciência", Iberian Encounter of Physics, Gijón, Spain, July 2015;

- (3) "Science Motivation"; Conference Hands On Science, Funchal, Madeira, July 2015;
- (4) "Poster Low Complexity Solar Powered Mobile Phone Charger For Educational Purpose", ICEILT International Congress on Education, Innovation and Learning Technologies, Granada, Spain, September, 2015.

# **VIII. Scentific Competitions with students**

- Olimpíadas de Astronomia, two students selected for the final, Astrophysics Centre at the University of Oporto, Agrupamento de Escolas do Bonfim – Portalegre, 2015;
- (2) Olimpíadas de Astronomia, regionals, one student; AE do Bonfim Portalegre; 2014;
- (3) Project "*Uma Estufa no Espaço"*; one of eight classes selected in Portugal, European Space Agency (ESA), Pavilhão do Conhecimento, 2011.

# IX. Lectures (most recente)

- January.2018 "*Uma Odisseia no CAFE, com Educação e Emoção..., em terras de Lorosae"*; Cultural Association"Palha de Abrantes", Abrantes;
- July.2017 "*A Vida de Galileu em (mais de) dois Atos*"; Iberian Encounters of Physics, Santiago de Compostela;
- August.2016 "O Espaço na Sala de Aula", Observatório do Lago Alqueva, Portugal;
- July.2016 "Exploração Espacial e Vida no Espaço", Estabelecimento Prisional do Montijo;
- Feb.2016 "Ciência, Experimentação e Pensamento Científico", Estabelecimento Prisional do Montijo;
- July.2015 "Science Motivation", 12.<sup>a</sup> International Conference Hands-on Science, HSCI 2015, Funchal;
- July.2015 "Motivar para a Ciência", Iberian Encounters of Physics, Gijon, Espanha.
- April.2015 "Encontros com a Ciência", Escola Superior de Tecnologia e Gestão de Portalegre;
- April.2014 "Galileu e Ciência Moderna", Agrupamento de Escola do Bonfim, Portugal.

# X. Participation in conferences and Professional Training (most recent)

- Nov.2017 "5.ª Conferência Professores Espaciais", ESERO Portugal, Pav. do Conhecimento, Lisboa;
- Oct.2017 "SPACE UP", ESERO Portugal, Pavilhão do Conhecimento, Lisboa;
- July.2017 "4.º Encontro da Casa das Ciências", Universidade de Lisboa, Lisboa;
- Oct.2016 "3.ª Conferência Professores Espaciais", ESERO Portugal, Pav. do Conhecimento, Lisboa;
- Oct.2015 "2.ª Conferência-Professores Espaciais", ESERO Portugal, Pav. do Conhecimento, Lisboa;
- Oct.2014 "1.ª Conferência Professores Espaciais", ESERO Portugal, Pav. do Conhecimento, Lisboa;
- July.2016 ESA Teachers Summer Workshop, European Space Agency (ESA), Noordwijk, Holanda;
- April.2016 ESA Robotics Teachers Programme, European Space Agency (ESA), Redu, Bélgica;
- July.2013 Lasers 2013 IPFN-IST (Plasma and Nuclear Fusion Institute),
  - IST-Lisboa / RAL (Rutherford Appleton Laboratory Oxford);
- August.2012 "6.ª Escola de Professores CERN em Língua Portuguesa", CERN, Geneva, Switzerland.

# XI. Other skills and personal interests

- Languages: Português, Inglês, Francês e Espanhol.
- Software: Microsoft Office, Internet, Web.
- Sports: Swimming, hiking, football.
- Hobbies: Reading (Science, Technology, Fiction, Historical, Phylosophy, History of Science); Music (Classical, Pop, Rock, Fado).

Abrantes, February 2019