

Curriculum Vitae - Débora Peres Menezes (D.Phil)

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Brazilian Lattes CV (with all details): <http://lattes.cnpq.br/4521038966994688>

YouTube Channels: [YouTube.com/Mulheresnaciencia](https://www.youtube.com/Mulheresnaciencia)

[YouTube.com/ DeboraMenezesFisica](https://www.youtube.com/DeboraMenezesFisica)

TikTok: <https://www.tiktok.com/@mulheresnaciencia>

Education

D.Phil – Oxford University, England (1989)

MSc - Instituto de Física, Universidade de São Paulo, Brazil (1986)

BSc - Instituto de Física, Universidade de São Paulo, Brazil (1983)

Physics teaching - Instituto de Física, Universidade de São Paulo, Brazil (1985)

Positions and scientific experience

President of the Brazilian Physical Society (2021-2023) - sbfisica.org.br

Professor - Universidade Federal de Santa Catarina – 1992 - present

Medical physics technician: Heart Institute (Incor/HCFMUSP) – 1985

Sabbatical leaves:

Universidad de Alicante, Spain (2013-2014),

School of Physics, Sydney University, NSW, Australia (2005),

Centro de Física Teórica – Universidade de Coimbra, Portugal (1998)

Post doctoral position:

Instituto de Física, Universidade de São Paulo, Brazil (1989-1992)

Main research areas of interest

Nuclear astrophysics (equations of state, relativistic models, hadronic matter, quark matter)

Quantum chromodynamics (QCD) phase diagram and phase transitions

Strong magnetic fields in hadronic and quark matter

Nuclear structure

Particle physics (equations of state, heavy ion collisions)

General relativity (applications of modified gravity)

Quantum algebras

Boson mapping techniques

Dissemination of science

My list of publications reflects my commitment in forming a strong group in nuclear physics at the Federal University of Santa Catarina. Since I decided to move from São Paulo to Florianópolis, at that time (1992) a very isolated island in terms of research, I immediately identified the necessity of creating a research group in collaboration with my colleagues and establishing a network for my students.

One of the books I wrote (Introduction to Nuclear and Particle Physics) was also a part of the effort to attract students, which paid off, as seen by the total number of them I supervised (37 graduate and 55 undergraduate students).

More recently, a very strong wave of science denialism has reached Brazil. The public universities have been under attack and strongly criticized as part of this movement. To fight the prejudice against science, in September 2019, I started the production of short videos posted on a YouTube channel. The Women in Sciences (*Mulheres na Ciência*) channel aims to deliver different scientific topics to the public in an uncomplicated and objective way by displaying short videos produced by and starring women scientists and students. The channel has been contributing, at the same time, with the scientific literacy of the Brazilian people, the scientific dissemination of frontier subjects and to fight false gender stereotypes that see women as less capable than men. More than 1.250 people have already subscribed to the Channel. As an active scientist, conscious of my responsibility to the Brazilian society, I was always strongly involved in outreach programs. Earlier in my career, by disseminating science among primary and high school students and more recently, also to the general public. Gender issues in physics has been recently one of my battles.

Publications

3 books, more than 200 refereed papers, more than 3500 citations, h-index: 31 (via Researcher ID); more than 5300 citations, h-index: 40, i-10 index: 112 (via Google Scholar); contributions to journals, magazines, blogs and video channels (~60.000 visualizations) – all citations tracked in October 2021.

Supervision Experience:

Supervision of 9 PhD students (4 under supervision), 14 MSc students (2 under supervision), 9 post-docs, 24 undergraduate students in research projects (3 under supervision) and 26 undergraduate students in teaching and outreach programs (2 under supervision).

Countries with previous or active collaborations:

England, Japan, Greece, Portugal, India, Australia, Spain, Italy, Argentina, France.

Leadership roles in National and International Collaborations, Organizations and Committees

I was hired at the Physics Department of the Federal University of Santa Catarina in 1992 and in my new position I soon succeed in nucleating a research group amidst around 70 colleagues, helping to transform, what was essentially a department dedicated to teaching into a department where research became an important component of its organisation. In 1998 I went to the University of Coimbra on a sabbatical leave and as soon as I returned, I started to assume the coordination of various projects, local, national and international committees and work as referee and journal editor. In order to consolidate the nuclear physics group, I applied to all possible sponsoring bodies and obtained grants and money for different projects including infrastructure for the experimental groups and for a small open air museum, totaling around 874.000 euros (scholarships and fellowships not included). I have also accepted various administrative positions, the most relevant being the Vice-

President for Research and Outreach Programs of my institution. Some of the roles, coordination and positions I have assumed are listed next.

International Collaborations

Coordinator of the Joint International Collaboration Brazil (UFSC and ITA) - France (Caen and Lyon) under the Capes/Cofecub agreement 835/15 – 2015 to 2018.

Coordinator of the Joint International Collaboration Brazil (UFSC) – Russia (JINR/Dubna) – since 2016.

Coordinator of the Joint International Collaboration UFSC/Brazil – ICRANet/Italy – since 2015.

Coordinator of the Joint International Collaboration Brazil (UFSC) – Portugal (Coimbra) under the Capes/FCT agreement 232/09 – 2009 to 2011.

Coordinator of the Joint International Collaboration Brazil (UFSC) – Portugal (Coimbra) under the Capes/GRICES agreement 100/03 - 2003 to 2006.

Invited member of the Program Committee Brazil - USSR – Joint Institute of Nuclear Research Forum: Frontiers in Nuclear, Elementary Particle and Condensed Matter Physics – Dubna, Rússia - 15 -19 July de 2015

http://theor.jinr.ru/~bf2015/images/brazil_program.pdf

Other Professional Activities (abroad)

Member of the International Union of Pure and Applied Physics C12 (Nuclear Physics Commission) – 2017 – 2021:

<https://iupap.org/commissions/c12-nuclear-physics/members/>

Chair of the parallel session NS3 - Different aspects of the QCD phase diagram investigated with hadronic models MG15 - Fifteenth Marcel Grossmann Meeting - La Sapienza - Università di Roma – 1-7 July, 2018

<http://www.icra.it/mg/mg15/>

http://www.icra.it/mg/mg15/parallel_sessions.htm

Chair of the parallel session NS3 - QCD phase diagram: from nuclear astrophysics to heavy ion collisions - da MG14 - Fourteenth Marcel Grossmann Meeting - La Sapienza - Università di Roma – 12-18 July, 2015

<http://www.icra.it/mg/mg14/>

http://www.icra.it/mg/mg14/parallel_sessions.htm

Other Professional Activities in Brazil

Member of the board of directors (as treasurer) of the Brazilian Physical Society (2019-2021)

<http://www.sbfisica.org.br/v1/home/index.php/pt/a-sbf/diretorias-anteriores>

Member of the Management Committee of the National Institute of Science and Technology of Nuclear Physics and Applications (2016-present)

<https://inct-fna.if.uff.br/en/comite-gestor/>

Vice-President (Dean, Provost) for Research and Outreach Programs (*Pró-Reitora de Pesquisa e Extensão*), Universidade Federal de Santa Catarina (2008-2012)

http://web2.ufsc.br/paginas/quem_e_quem.php

Member of the Fact Checking Group (VeriFísica) of the Brazilian Physical Society (2020 – present)

<http://www.sbfisica.org.br/v1/home/index.php/pt/a-sbf/comissoes>

President of the Gender Working Group of the Brazilian Physical Society (2015-2019)

<http://www1.fisica.org.br/gt-genero/index.php/componentes>

Mentor and coordinator of the outreach project *Parque Viva a Ciência* (Save the Science Park), an open-air museum (2004 – 2014)

<https://vivaciencia.ufsc.br/>

<https://www.youtube.com/watch?v=AgzBdsJpzb0>

<https://www.youtube.com/watch?v=nzDatImEy00>

<https://www.youtube.com/watch?v=IbVSJdzGojk>

Member of the Nuclear Physics Commission of the Brazilian Physical Society (2012-2016)

Member of the Permanent Commission for the Assessment of Brazilian Outreach Programs (2011-2013)

Coordinator of the Physics Graduate Program of the Federal University of Santa Catarina (2006-2008)

Technical consultant for Brazilian sponsoring bodies (CNPq, Capes, FAPESC, FAPESP, Araucária, etc) and many Brazilian Universities.

Member of over 60 Selection Committees, PhD and MSc examination boards.

Participation in over 100 round tables and parallel talks in international and national congresses.

Prizes and honours

Nominated for the Commission on Nuclear Physics (C12) of the International Union of Pure and Applied Physics - 2017

Medal and Diploma Francisco Dias Velho granted by the Florianópolis City Hall for “notable contributions in arts, literature and sciences”, 23 February, 2012.

Plaque of Honor - IWARA scientific community – “for a brilliant scientific and academic career” - 2016

Patroness at the graduation ceremony of bachelor students – Universidade Federal de Santa Catarina – 2013 and 2017

Invited talks (last years - online talks not included)

Keynote Speaker at the International Seminar on Emerging Trends in Physics and Applications (ISETPA-2019), 02/02 -04/02/2019 - Berhampur, Orissa, India – Title of the talk: Describing magnetars
(photos on my personal website: <http://deborafsc.ufsc.br/>)

<https://inct-fna.if.uff.br/en/seminario-internacional-sobre-tendencias-emergentes-em-fisica-e-aplicacoes/>

<http://www.isetpa.in/>

Invited Speaker at Saitama University, Japan - December, 2018 - Title of the talk: Neutron Stars in the era of multimessenger astronomy
(photos on my personal website: <http://deborafsc.ufsc.br/>)

Invited Speaker at 4th IDPASC Students Workshop, Coimbra, Portugal, 28-29/06/2018 – Title of the talk: The Scissors Effect in the Life of Female Physicists, http://www.idpasc.lip.pt/LIP/events/2018_workshop_students_coimbra/index.php

Keynote Speaker (Colloquium) at the XIII Hadron Physics - 22 - 27/03/2017 - Angra dos Reis, RJ, Brazil – Title of the talk: Modelling Hadronic Matter
<https://indico.cern.ch/event/322559/>

Invited speaker and participant at the Mini-workshop Bled 2014: quark masses and hadron spectra, Bled, Slovenia, 6-13 July, 2014 - Title of the talk: Quark matter in strong magnetic fields
<http://www-f1.ijs.si/Bled2014/>

Invited Speaker at Sapienza Università di Roma, Italy, 18/03/2014 - Title of the talk: SU(3) symmetric hypernuclear matter and related stellar properties

Invited Speaker at ICRAnet, Pescara, Italy 20/03/2014 - Title of the talk: Stellar quark matter in magnetic fields and anisotropic effects

Invited Visitor at the Departamento de Física Atómica, Nuclear y Molecular, Universidad de Granada, January, 2014

Invited Speaker at the Laboratoire de Physique Corpusculaire, Caen, France, 13/12/2013 - Title of the talk: The pasta phase, its relation with spinodal instabilities and application to stellar matter

Invited Speaker and participant at EMMI Rapid Reaction Task Force Meeting on Quark Matter in Neutron Stars - Frankfurt Institute for Advanced Studies (FIAS) - 7 - 9/10/2013 - Title of the talk: Quark matter subject to strong magnetic fields
<https://indico.gsi.de/conferenceTimeTable.py?confId=2420#all>

Editorial roles in International Journals

Honorary Member of the Editorial Board of the IJBST Group of Journals – since February 2020

https://board.ijbst.org/?fbclid=IwAR3YB5WyeMTGaXkmal3lqcumKJXzclw_QW3DxfLlbQHn3sikqbhEyZJR2
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Editor of Papers in Physics (2020- present)

<https://www.papersinphysics.org/papersinphysics/about/editorialTeam>

Editor of the European Physical Journal A Topical Issue: The QCD Phase Diagram in Strong Magnetic Fields

<https://www.epj.org/open-calls-for-papers/122-epj-a/1998-epja-topical-issue-the-qcd-phase-diagram-in-strong-magnetic-fields>

Editor of the International Journal of Outreach and Community Engagement (IJOCE) – Unicamp

<https://econtents.bc.unicamp.br/inpec/index.php/ijoce/about/editorialTeam>

Referee for Physical Review Letters, Physical Review C, Physical Review D, European Physical Journal A, Chinese Physics C, International Journal of Modern Physics D, International Journal of Modern Physics E, Brazilian Journal of Physics, Revista Cubana de Física, Journal of Physics A, Journal of Physics G and others.