

CURRICULUM VITAE

March 2023

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PROFESSIONAL ADDRESS

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EDUCATION

- 1979 Bachelor in Physics (BSc) – Institute of Physics - Universidade de São Paulo (IF-USP)
- 1982 Master in Astronomy – Institute of Astronomy, Geophysics and Atmospheric Sciences – Universidade de São Paulo (IAG-USP)
- 1989 PhD in Astronomy – IAG-USP 1989
- 1990-1992 Post-doctoral fellow, Harvard University – Center for Astrophysics (CfA), Cambridge, USA
- 1997 Free Professorship - IAG-USP
- 1994-2001 Associated Researcher at International Centre for Theoretical Physics (ICTP), Italy
- 1998-2000 Visiting Scholar, University of California – Berkeley – Astronomy Department, USA
- 2019 Full Professor – IAG-USP

PROFESSIONAL EXPERIENCE

- Assistant Professor – Institute of Astronomy, Geophysics and Atmospheric Sciences-Universidade de São Paulo (IAG-USP) – 1987-1989
- Professor – IAG-USP – 1989-1997
- Associate Professor – IAG-USP – 1997-2012
- Associate Professor III – IAG-USP – 2012-2019
- Full Professor – IAG-USP – 2019-
- Visiting Professor - Princeton University, USA, May 1997; November 2015, February 2022
- Visiting Professor - INAOE, Puebla, México – May 1996
- Visiting Professor - Observatoire de Nice, France – July 1998
- Visiting Professor - Osservatorio de Arcetri – Florence, Italy, June-July, 1996, 1998, 2001, 2004
- Visiting Professor - Universidad Autonoma de Mexico – México, 2002, 2005, 2007
- Visiting Professor - University of Wisconsin – Madison, EUA, 2003, 2007, 2008, 2009
- Visiting Professor - University of Pisa – Italy, 2004, 2005
- Visiting Professor - Observatory of Paris-Meudon – France, Jan.-Feb. 2012
- Visiting Professor - Hebrew University of Jerusalem – Israel, April 2013
- Visiting Professor - Pontificia Universidad Catolica de Santiago – Chile, April 2013
- Visiting Professor - Princeton University, Peyton Hall, Princeton – USA, December 2015
- Visiting Professor - DESY Institute, Zeuthen, Berlin, Germany, October, 2016
- Visiting Professor - Goethe Institute, University of Frankfurt, ITP, Frankfurt, Germany, October, 2016
- Visiting Professor - Princeton University, Peyton Hall, Princeton – USA, February 2022
- VICE-PRESIDENT Culture & Extension Committee, IAG-USP, 2004-2005
- COORDINATOR THEMATIC PROJECT, FAPESP “Investigation of Investigation of High Energy Astrophysics Phenomena (N. 1997/13084-3), (1997/13084-03) 2000-2004
- COORDINATOR (POST)GRADUATION PROGRAM – Astronomy (CAPES 7) – IAG-USP, 2005-2012
- COORDINATOR THEMATIC PROJECT, FAPESP “Investigation of High Energy and Plasma Astrophysics Phenomena: Theory, Observation, and Numerical Simulations (N. 2006/50654-3) 2006-2012

- STEERING COMMITTEE of IAU (International Astronomical Union) Interstellar Matter, France, 2006-2012
- PRESIDENT of (Post)Graduation Program of IAG-USP, 2008-2009
- Member of the National Forum of Astronomy/Physics Graduate Coordinators at the CAPES, 2006-2010
- Member CAPES Evaluation Committee, 2009
- Member of the JETSET Network - Marie Curie European Research and Training Network on Jet Simulations, Experiments and Theory, 2005-2008
- Member of the Collaboration Gemini/NICI finding extrasolar planet campaign, 2006-2013
- Co-PI of the Brazilian-French Mission (USP-COFECUB) for Polarization and magnetic measurements with PLANCK Satellite-PILOT-LNA for cosmological purposes, 2008 – 2015
- COORDINATOR FAPESP MULTI-USER PRO-EQUIPMENT: SUPER CLUSTER computer for Astronomy (FAPESP 2009/54006-4), 2009-2012
- EMU: PLANCK SATELLITE CONSORTIUM external collaborator – ESA, 2009-2013
- Member Executive Board of LLAMA (Large Latin American Millimeter Array), 2009-2016
- Member Advisory Board of LLAMA (Large Latin American Millimeter Array), 2016-2022
- CHERENKOV TELESCOPE ARRAY (CTA) BRAZILIAN CO-PI & CONSORTIUM BOARD member 2010-
- COORDINATOR PROJECT USP-HEBREW UNIVERSITY OF JERUSALEM (HUJ) Magnetic Field Effects and Particle Acceleration in Gamma-Ray Bursts (GRBS) (FAPESP grant: 2011/51275-4), 2011-2013
- PI OF ASTRI-MINI-ARRAY PROJECT IN BRAZIL, 2014-
- CO-PI OF USP-PRINCETON PROJECT: Unveiling the Universe with Galaxy Surveys and Magnetohydrodynamical Studies, 2013-2018
- COORDINATOR THEMATIC PROJECT FAPESP Investigation of High Energy Astrophysics and Plasma Phenomena: Theory, Observations, Numerical Simulations, and Instrument development for the Cherenkov Telescope Array (2013/50559-5), 2014-present
- MEMBER OF STEERING COMMITTEE C4 of Astroparticle Physics of THE INTERNATIONAL UNION OF APPLIED PHYSICS (IUPAP), 2014-2019
- REPRESENTATIVE OF IAG-USP AT THE UNIVERSITY OF SÃO PAULO DEAN COUNCIL (CO) 2015-2017
- VICE-PRESIDENT of Brazilian Membership Nomination Committee at IAU 2015 –
- PRESIDENT of CCNI (National and International Cooperation Commission) at IAG-USP, 2016-2020
- Founding Member of SPANET - Sao Paulo Astronomy Network, 2016 –
- MEMBER OF STEERING EXECUTIVE COMMITTEE OF SMALL SIZE TELESCOPES (SST) at CTA CONSORTIUM, 2019-2021
- FULL MEMBER OF THE BRAZILIAN ACADEMY OF SCIENCE – 2020-

LINES OF RESEARCH

1. Plasma (Magnetohydrodynamics) and High Energy Astrophysics
Theory and Numerical (MHD) Simulations applied to:
 - Supersonic jets and winds from stars and galaxies and their feedback on the surrounding environment
 - Compact Objects and their interactions with the environment: black holes, supernovae, neutron stars, microquasars, pulsars, accretion disks, active galactic nuclei (AGNs)
 - Starburst Galaxies and Active Interacting Galaxies
 - Star formation induced by shocks and turbulence in normal galaxies and interacting galaxies and their feedback
 Fundamental processes:
 - Turbulence
 - Magnetic Reconnection
 - Dynamo in astrophysical sources and diffuse media
 - Relativistic magnetohydrodynamics (special and general)
 - Acceleration and propagation of cosmic rays
 - Radiative and multi-messenger processes (gamma-rays, cosmic rays, neutrinos, gravitational waves)
2. Cosmology

- Dark Matter, Large-Scale Structures, Cosmic Background Radiation, Gravitational Waves, Turbulence and Origin of Cosmic Magnetic Fields
3. Instrumentation Development
- Millimeter and sub-millimeter telescopes for LLAMA
 - Gamma Ray Astrophysics – Cherenkov Telescopes for the CTA and the ASTRI Mini-Array

COUNSELING OF SCIENTIFIC FUNDING AGENCIES

- FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo)
- CNPq (National Council of Research, Brazil)
- CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior)
- FACEPE (Fundação de Amparo à Pesquisa de Pernambuco)
- Dutch NWO Research Council for Physical Sciences (Netherlands)
- Italian Super-Computing Resource Allocation (ISCRA, Italy)
- Agencia Nacional de Promoción Científica Y Tecnológica (Anpc&T, Argentina),
- European Space Agency – ESA

REFEREE FOR JOURNALS

- Phys. Rev. Letters
- ApJ
- A&A
- MNRAS
- RMAA
- Phys Rev. B
- Sp Sc. Rev
- AdSpRes
- Comp.Appl. Math.
- Physical Rev. D

ORGANIZATION OF CONFERENCES

- SOC 27th IAU-General Assembly, Rio de Janeiro, 2009
- CHAIR IAU Joint Discussion 7 Astrophysical Outflows and Associated Accretion Phenomena, 27th IAU Assembly, Rio de Janeiro, 2009
- CHAIR IAU Joint Discussion 15 Magnetic Fields in Diffuse Media, 27th IAU- General Assembly, Rio de Janeiro, 2009
- Co-chair IAU Symposium 274 Advances in Plasma Astrophysics, Italy, 2010
- SOC IAU Symposium 275 Jets in all Scales, Argentina, 2010
- SOC-CO-CHAIR & CREATOR of the Conferences: Magnetic Fields in the Universe (I, Rio de Janeiro, 2004; II, Cancun, Mexico, 2008; III, Zakopanni, Poland, 2011; IV, Playa del Carmen, Mexico, 2013; V, Corseca, France, 2015; VI, Brazil 2017; VII Vietnam 2020)
- SOC IAU Conferences in IAU-General Assembly, Beijing, China, 2012
- CO-CHAIR IAU Symposium 294 on Solar and Astrophysical Dynamos, Beijing, China, 2012
- SOC COSPAR Conference, India, 2012
- SOC Marcel Grossmann Meeting, XIII, Stockholm, 2012
- LOC 33th International Cosmic Ray Conference, Rio de Janeiro, 2013
- Co-chair, International School on Theoretical Astrophysics, ICTP-South America, Sao Paulo, 2013
- SOC, International School on Turbulence: in the sky as on the earth, International Institute of Physics, Natal, 2013
- SOC, IAU Symposium 313: Extragalactic jets from every angle, Galapagos Islands, Equator, 2014
- SOC, IAU Symposium 313: Extragalactic Jets from every angle, 2014
- SOC, COSPAR: Reconnection - from the Sun to Planets and the Galaxy (session D21E31), 2014
- SOC 34th International Cosmic Ray Conference, Den Hague, Holland, 2015
- SOC New Physics in Space, Campos do Jordao, Brasil, 2016
- CO-CHAIR WORKSHOP ON PALEO-WEATHER AND SOLAR MAGNETIC ACTIVITY, 2016
- SOC & IAC 35th International Cosmic Ray Conference (ICRC), Busan, South Korea, 2017

- CHAIR SAO PAULO SCHOOL OF ADVANCED SCIENCE ON HIGH ENERGY AND PLASMA ASTROPHYSICS IN THE CTA ERA (SPSAS-HighAstro), 2017
- SOC Deciphering the Violent Universe, Play del Carmen, Mexico, 2017
- SOC 18th International Congress on Plasma Physics (ICPP), Vancouver, Canada 2018
- CO-CHAIR IAU SYMPOSIUM 342 - Perseus in Sicily, 2018
- SOC IAU Symposium 354 - Solar and Stellar Magnetic Fields, Chile, 2019
- SOC XVI LARIM - Latin American Regional IAU Meeting, Antofagasta, Chile, 2019
- SOC ICRC Conference, Wisconsin USA, 2019
- SOC IAU Symposium Predictive Power of Computational Astrophysics, Chamonix, France (online), 2021
- SOC Reuven Opher Memorial Symposium, ICTP-SAIFR, Brazil (online), January 2021
- SOC Opher Workshop on Challenges of New Physics, ICTP-SAIFR, Brazil, December 2021
- SOC IAU-GA Focus Symposium Dynamics of the ICM: Radio and X-ray Observations and Theory, Busan, South Korea, 2022

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- Brazilian Astronomical Society (SAB) 1982- present
- American Astronomical Society (AMS) 1991-2005
- International Astronomical Union (IAU) 1994- present
- INTERNATIONAL UNION OF PURE & APPLIED PHYSICS (IUPAP), 2014 – present

AWARDS & DISTINCTIONS

- Post-Doctoral Fellow Award Inter-American Bank for Development (IBD), Harvard University, 1990
- Associate Researcher affiliation at International Centre for Theoretical Physics (ICTP), Italy, 1994
- 63rd JABUTI Award Best Scientific Book, “Astronomia: Uma Visao Geral do Universo”, 2001
- Outstanding article in Astronomy and Astrophysics (A&A) “Turbulent magnetic pumping in a Babcock-Leighton solar dynamo model”, 2008
- PhD thesis advisor of Outstanding Thesis Astronomy (student: Claudio Melioli), IAG-USP, 2006
- PhD thesis advisor of Best Thesis in Astronomy (student: Gustavo Guerrero), IAG-USP, 2010
- PhD thesis advisor (student: Gustavo Guerrero) – National Award CAPES Honorable Mention, 2011
- PhD thesis advisor of Best Thesis in Astronomy (student: Reinaldo Santos-Lima), IAG-USP, 2013
- PhD thesis advisor of Best Thesis in Astronomy (student: Luis H. S. Kadowaki), IAG-USP, 2018
- 2017 CLAUDIA Award - WOMAN IN SCIENCE, 2017
- Honorable Mention for work presented at Brazilian Astronomical Society (SAB) Annual Meeting: “Diffuse intergalactic magnetic fields and constraints for the CTA and ASTRI MINI-ARRAY observations”, 2017
- Honorable Mention for work presented at SAB Annual Meeting: “Intermediate-Mass Black Holes in Dwarf Galaxies”, 2017
- Best work presented at SAB Annual Meeting in High Energy Session, 2018
- Advisor of one of the 5 best Scientific Initiation Works at USP in Area Physics and Astronomy at SIICUSP, 2019
- FULL MEMBER OF BRAZILIAN ACADEMY OF SCIENCE (ABC), 2020
- FULL MEMBER OF TWAS – World Academy of Sciences, 2023

RELEVANT FUNDING IN RESEARCH PROJECTS

- Thematic Project (FAPESP: 2013/10559-5): Investigation of High Energy Astrophysics and Plasma Phenomena: Theory, Observations, Numerical Simulations, and Instrument development for the Cherenkov Telescope Array (Coordinator) 3.5 Million USD (2014-present)
- Thematic Project (FAPESP: 2006/50654-3) (Coordinator), 190,000.00 USD (2006 – 2012)
- Productivity Research Grant CNPq (level 1A) 36.000,00 R\$/year

- Project COFECUB USP-Brazil-France – PLANCK Polarization Mission for constraining dust polarization and magnetic field properties of the foreground for cosmological studies, 2008 – 2012 (Co-PI) 10.000,00 USD/yr
- Design-Pro Multi-User Equipment: SUPER CLUSTER FOR ASTRONOMY IAG/USP & UNICSUL (Coordinator), (FAPESP 2009/54006-4), 650.000,00 USD (2010-2012)
- USP-HEBREW UNIVERSITY OF JERUSALEM (HUJ): “Magnetic Field Effects and Particle Acceleration in Gamma-Ray Bursts (GRBS)” (Coordinators: T. Piran, HUJ & E. M. de Gouveia Dal Pino, USP) (FAPESP: 2011/51275-4), 100.000,00 USD (2011-2013)
- LLAMA Project (collaborator; coordinator: J. Lepine), FAPESP, 10 Million USD (2013-2022)
- USP-PRINCETON University: “Unveiling the Universe with Galaxy Surveys and Magnetohydrodynamical Studies” (Coordinators: J. Stone & M. Strauss (Princeton); E. M. de Gouveia Dal Pino & L. Sodre Jr. (USP), 100.000,00 USD (2013-2017)

ACADEMIC QUANTITATIVE INDICATORS

- Books edited/authored: 10
- Refereed papers: 134 (as for January, 2023)
- Book Chapters, Reviews & Proceedings (full papers only): 123
- Citations: 8889 (GOOGLE ACADEMIC)
- H factor: 49 (GOOGLE ACADEMIC)
- i10-index: 126 (GOOGLE ACADEMIC)
- Talks and seminars: 242 (178 invited) (as for March, 2023)
- Supervised theses (concluded): 25 (17 PhDs, 8 Masters) (and ongoing 4 PhD, 1M)
- Supervised Postdocs (concluded): 13 (and ongoing 1 PD)
- Supervised Scientific Initiations (concluded): 14 (and ongoing 3 ICs)
- Theses refereed: 79 (including theses from Mexico & Australia)
- Organization of international conferences: 42
- Productivity National Council of Research (CNPq) Fellowship: level 1A

LINKS

- ORCID <https://orcid.org/0000-0001-8058-4752>
- WEB OF SCIENCE (RESEARCHER ID PUBLONS): [H-9560-2013](https://publons.com/researcher/H-9560-2013/)
- GOOGLE SCHOLAR: <http://scholar.google.com.br/citations?hl=en&user=Xgsg56IAAAAJ>
- WEBPAGE: <http://www.astro.iag.usp.br/~dalpino/?q=publications>