

SYLVIO FERRAZ-MELLO

0. DATA

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Born 26-Oct-1936 São Paulo, Brasil

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1. TITLES

B.S. (Physics), Univ. of São Paulo, 1959.

Specialist (Physics), Univ. of São Paulo, 1962.

Docteur d'Etat ès Sciences Mathématiques, Académie de Paris, 1967.

Full Professor, Aeronautics Institute of Technology, 1971.

Docent, Univ. of São Paulo, 1975.

Professor, Univ. of São Paulo, 1980.

Docteur Honoris Causa, Observatoire de Paris, 2007

Emeritus, Univ. of São Paulo, Institute of Astronomy, Geophysics and Atmospheric Sciences, 2007.

2. POSITIONS HELD

Faculty of Sciences, Univ. São Paulo, Dept. Physics 1960 - 1962.

Aeronautics Institute of Technology, São José dos Campos, 1967 - 1974.

Institute of Astronomy, Geophysics and Atmospheric Sciences - 1973 (formally retired, 1999;.Emeritus, 2007).

National Observatory, Rio de Janeiro 1999 - 2001.

3. VISITING POSITIONS

1962-1967 - Stagiaire Etranger, Bureau des Longitudes, Paris (France)

1972 - Lecturer, Dept. of Engineering Mechanics and Aerospace Engineering, University of Texas at Austin (USA)

1984 - Professor, Universidade do Porto (Portugal)

1985,1992 and 2007 - Gäst, Institut für Astronomie. Universität Wien (Austria)

1986 - Professeur Associé, Université Paris 7 (France)

1987, 1995 and 1998 - Profesor, Universidad Nacional de La Plata (Argentina)

1988 and 1993 - Professeur Visitant, Université Paris 7 (France)

1989 - Astronome, Observatoire de la Côte d'Azur - Nice (France)

1993 and 1997 - Professor de Disciplina de Pós-Graduação, Instituto de Física, USP.

1994 - Gästprofessor. Formal- und Naturwissenschaftliche Fakultät der Universität Wien (Austria)

1998 - Profesor Visitante, Universidad Nacional de Cordoba (Argentina).

2001 – Professeur Invité, Université Pierre et Marie Curie - Paris 6 (France)
2009 – Visiting Fellow. Isaac Newton Institute for Mathematical Sciences. University of Cambridge (UK)

4 GENERAL

Editor-in-chief, "Celestial Mechanics and Dynamical Astronomy" since 2001.
Director, National Observatory, 1999 - 2001.
Director, Institute of Astronomy, Geophysics and Atmospheric Sciences, Univ. of São Paulo, 1981 - 1985.
Associate Editor – "Celestial Mechanics and Dynamical Astronomy", 1989 -2001.
International Editor - "Celestial Mechanics", 1981 -1988.
Editor – "Ciência e Cultura" (Journal of the Brazilian Society for the Advancement of Science) 1986 -1989.
Editorial Board member - "Vistas in Astronomy" (Pergamon Press, Oxford) 1993 – 1997.
Member, Brazilian Academy of Sciences
Member, Latin America Academy of Sciences (Council 1988-1996)
Member, TWAS - Academy of Sciences of the Developing World
Member, São Paulo State Academy of Sciences (President, 2009-2011)
Foreign Associate, Bureau des Longitudes (Paris).
Corresponding Member Real Academia de Ciências de Zaragoza
Order of Scientific Merit (Brazil) – Great Cross,
Asteroid name: (**5201**) Ferraz-Mello.
Chair: International Astronomical Union Symposium No. 152 (Angra dos Reis, 1991).
Co-Chair: International Astronomical Union Symposia No. 172 (Paris, 1995), No. 229 (Buzios, 2005), No. 249 (Suzhou, China, 2007), No. 263 (Rio de Janeiro, 2009) and Colloquium No. 172 (Namur, Bélgica,1998)
Chair: 6th and 7th Alexander von Humboldt Colloquium on Celestial Mechanics (Bad Hofgastein, Austria, 2004 and 2008).
Co-Investigator. CoRoT space mission. 2009-
Member, International Astronomical Union (IAU)
President. IAU Commission 7 (Celestial Mechanics) 1994 - 1997.
President. IAU Working Group "Orbits and Ephemerides of Planetary Satellites", 1976 - 1979.
Director. FUVEST (University Foundation for scholar aptitude tests) 1985 - 1989.
Adjoint (Exact Sciences and Engineering) to the Scientific Director of FAPESP (São Paulo State Research Foundation) 1987 - 1994.
President. National Astronomy Commission. 1991 - 1994.
President. LCCA-USP (University Laboratory for High-performance Scientific Computing) 1996 - 1998.

5. FELLOWSHIPS

Academic Dedication Fellowship, CAPES/Brazil Education Ministry, 1992-1995.
Research Fellow 1A, National Council of Scientific and Technological Development (CNPq), since 1990

6. BOOKS

1. S.Ferraz-Mello, CANONICAL PERTURBATION THEORIES: DEGENERATE SYSTEMS AND RESONANCES. Springer (ISBN-10:0-387-38900-8) xiv+341 pp., New York, (2007)
2. S.Ferraz-Mello, DINAMIKA GALILEIEVIKH SPUTNIKOV YUPITERA. Vvodnii Kurs, Izd-vo Mir, Moscow, (1983).
3. S. Ferraz-Mello, DYNAMICS OF THE GALILEAN SATELLITES. An Introductory Treatise, IAG-USP (1977)

7. SOME SELECTED ARTICLES

1. S.Ferraz-Mello, Estimation of Periods from Unequally Spaced Observations, *Astronomical Journal*, **86**, 619-624 (1981) [**>150 citations**].
2. On the convergence domain of the Laplacian expansion of the disturbing function. *Celestial Mechanics and Dynamical Astronomy*, **58**, 37-52 (1993)
3. Kirkwood gaps and resonant groups (Invited Review Paper) *IAU Symposium 160. Asteroids, Comets, Meteors 1993* (A.Milani, M.Di Martino & A.Celino, eds.) Kluwer Acad. Publ. (Dordrecht, Holand) pp. 175-188 (1994)
4. A Symplectic Mapping approach to the study of the Stochasticity in Asteroidal Resonances. *Celestial Mechanics and Dynamical Astronomy*, **65**, 421-437 (1997).
5. On the asteroidal population of the first-order Jovian resonances. (D.Nesvorný & S.Ferraz-Mello) *Icarus*. **130**, 247-258 (1997).
6. Chaos, Diffusion, Escape and Permanence of Resonant Asteroids in Gaps and Groups. (S. Ferraz-Mello, D. Nesvorný, & T.A.Michtchenko) In *Solar System Formation and Evolution* (D.Lazzaro et al. eds.), Astron. Soc. Pacific, San Francisco, 65-82 (1998).
7. Frequency Map Analysis of the orbital structure in elliptical galaxies (F.C.Wachlin & S.Ferraz-Mello) *Monthly Notices of the Royal Astronomical Society*, **298**, 22-32 (1998).
8. Slow and Fast Diffusion in Asteroidal-Belt Resonances. A Review. *Celestial Mechanics and Dynamical Astronomy* **73**, 25-37 (1999).
9. Evolution of Migrating Planet Pairs in Resonance, (S. Ferraz-Mello, C. Beaugé & T.A. Michtchenko) *Celestial Mechanics and Dynamical Astronomy*, **87**, 99-112 (2003)
10. Extrasolar Planetary Systems (S.Ferraz-Mello, T.A.Michtchenko, C. Beaugé and N. Callegari Jr. In *Chaos and Stability in Extrasolar Planetary Systems* (R. Dvorak et al. eds.) *Lecture Notes in Physics*, Springer (2005)
11. Reliability of orbital fits for resonant Extrasolar Planetary Systems: The case of HD 82943 (C.Beaugé, C.A.Giuppone, S. Ferraz-Mello and T.A.Michtchenko) *Monthly Notices of the Royal Astronomical Society*, **385**, 2151-2160 (2008)

12. Tidal Friction in close-in satellites and exoplanets. The Darwin theory revisited. (S. Ferraz-Mello, A. Rodríguez & H. Hussmann) *Celestial Mechanics and Dynamical Astronomy* **101** 171-201 (2008) (astro-ph/0712.1156)
13. Physical and Dynamical characterization of object (5201) Ferraz-Mello – A possible extinct Jupiter family comet. (M.J. Carvano, D. Lazzaro and S. Ferraz-Mello) *Astronomy and Astrophysics* **489**, 811-817 (2008)
14. The CoRoT-7 planetary system: two orbiting super-Earths (D. Queloz et al. – *Astronomy and Astrophysics*. **506**, 303-319. (2009)
15. A transiting giant planet with a temperature between 250 K and 430 K (H.J. Deeg et al.; CoRoT Exoplanets Science Team) *Nature*, **464**, 384-387 (2010)
16. Detectability and Error Estimation in Orbital Fits of Resonant Extrasolar Planets (C.A. Giuppone, M. Tadeu dos Santos, C. Beaugé, S. Ferraz-Mello and T. A. Michtchenko), *Astrophysical Journal* **699**, 1321-1332. (2010)
17. On planetary mass determination in the case of super-Earths orbiting active stars. The case of the CoRoT-7 system (S. Ferraz-Mello, M. Tadeu dos Santos C. Beaugé, T.A. Michtchenko and A. Rodríguez). ArXiv: 1011.2144v2 (2011)

8. PUBLICATION STATISTICS

Books published in Brazil:	2
Books published abroad:	2
Books edited in Brazil	2
Books edited abroad:	11
Papers in referred journals	102
Papers in Proceedings and Book Chapters	99
Others	6

9. THESES SUPERVISION – Summary

University of São Paulo	Ph.D.	17	M.Sc.	7
Aeronautics Institute of Technology :	Ph.D.	3	M.Sc.	15
National Observatory (CNPq)	Ph.D.	1	M.Sc.	1
University of Paris (Paris 6)	Dr d'État:	1		

Data: Feb.10, 2011