Address

Route de Genève, 78 1028, Préverenges, Lausanne, Switzerland

Rogério Jorge 12/04/1992

Experience

Tel

+41 0765074111 (CH)

Mail

rogerio.jorge@ epfl.ch

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> Research Topics

Plasma Physics
Magnetic Confinement
Tokamak Edge (SOL)
General Relativity
Black Holes
General Relativistic
MHD

01/15 - Now PhD Student

Swiss Plasma Center (SPC) - EPFL, Lausanne Switzerland

Instituto de Plasmas e Fusão Nuclear (IPFN), APPLAuSE - IST, Lisboa Portugal

Plasma physics theory and modelling with applications to nuclear fusion. **Thesis:** "Analytical Model for the Scrape-off Layer Plasma Dynamics at Ar-

bitrary Collisionality"

08/14 - Now Startup Co-founder & Web Developer

Portal da Sabedoria

Online platform to match student and tutors according to their own schedule. NovaBase's Gameshifters 2014 winners: start-up 24h contest, 4000€ prize

University of Lisbon award: 2014/2015, 5000€ prize portaldasabedoria.pt youtube.com/user/matmania1

Education

2010 - 2014 Master's in Engineering Physics (18/20)

Técnico Lisboa (IST), Portugal

Main subjects: Nuclear Fusion, Kinetic Theory, Advanced Topics in Particle Physics, Astrophysics and Particle Physics, Topics in General Relativity.

Erasmus student for 6 months at EPFL, Switzerland

Thesis: "Simulation of Plasma Blobs in Realistic Tokamak Geometry", Advi-

sors: Prof. Nuno Loureiro, Prof. Paolo Ricci.

2002 - 2010 Classical Guitar and Music Theory Course - Music School (18/20)

Conservatório de Música David de Sousa, Figueira da Foz, Portugal

Main subjects: Acoustics, Composition, Music Theory, Music History Winner of the 2008 International Guitar Contest of Fundão, Portugal

Languages

Portuguese ****
English ***
French ***
Matlab/Mathematica
Latex/Fortran/Linux
HTML/CSS/PHP/MySQL

Academia

2016-Now Lecture Assistant EPFL, Portugal

General Physics I and II, 1st and 2nd semester Mechanical Engineering

Advanced Physics I, 1st semester Physics

2017-Now Physics PhD Student Representative EPFL, Switzerland

EPFL Doctoral Program in Physics (EDPY)

2015-2016 Lecture Assistant IST, Portugal

Mechanics and Waves, 1st semester Engineering Physics

2010-2012 Engineering Physics Class Delegate IST, Portugal

Main Publications

2016	R. Jorge, P. Ricci, F. Halpern, N. Loureiro, C. Silva Physics of Plasmas 23, 10
	Plasma Turbulence in the Scrape-off Layer of the ISTTOK Tokamak

2015 R. Jorge, E. Oliveira, J. Rocha Classical and Quantum Gravity 32, 6

Greybody factors for rotating black holes in higher dimensions

2014 G. Cardoso, R. Jorge, S. Nampuri Journal of High Energy Physics 2, 19

Indefinite theta functions and black hole partition functions

Conferences

10/2017 **European Fusion Theory Conference, Athens** Invited Talk An analytical model for SOL plasma dynamics at arbitrary collisionality

07/2016 **21st Joint EU-US Transport Task Force Meeting, Leysin** Poster Presentation

A Drift-Kinetic Model for Tokamak SOL Plasmas

Students

2016-2017 Master's Thesis

EPFL

• Sonia Gamba, Politecnico de Milano, 2017: "Analysis of Linear Instabilities in the Scrape-off Layer of a Tokamak Plasma through a Reduced Drift-Kinetic Model"

Travaux Pratique de Physique IV

EPFL

Antoine Baillod, 2017: "Gyrokinetic Equations for Scrape-off Layer Plasmas"

Summer Internship

EPFL and IST

- Lorenzo Perrone, EPFL, 2017: "Parallel and Perpendicular Moment Description of Scrape-off Layer Linear Instabilities"
- Konovets Vyacheslav, EPFL, 2017: "Modelling of Coulomb Collision Full-F Moment Description"
- Nuno Teixeira, IST, 2017: "Convergence Studies of a Moment Pitch Angle Description of a Colisionless Plasma"
- Clara Pereira, IST, 2016: "Magnetic Field Generation in Charged and Rotating Accretion Disks"