Curriculum Vitae Federico Cipolletta

▬▬▬ Contact Information

First Name	Federico
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▬▬▬ Personal Information

Date of Birth	June 24, 1987
Place of Birth	Macerata, Italy
Citizenship	Italian
Sex	Male
Marital Status	Single

▬▬▬ Education

2012–22/03/2016   *Graduate: Ph.D in Physics and Relativistic Astrophysics*, Sapienza University of Rome, Italy

Thesis title: **Structure of rotating self-gravitating figures of equilibrium in Newtonian gravity and general relativity with an emphasis on neutron stars**

Thesis Advisors: Prof. Simonetta Filippi and Prof. Jorge Armando Rueda Hernandez

Classification: **Excellent**

2009–2012   *Master Degree: Mathematics*, University of Camerino, Italy

Thesis title: **Avoidance of singularities for charged collapsing solutions in spherical symmetry**

Thesis Advisor: Roberto Giambó

Final Degree Remark: **110/110 cum laude**

2006–2009   *Bachelor Degree: Mathematics*, University of Camerino, Italy

Thesis title: **Rational Tangles and Continued Fractions**

Final Degree Remark: **110/110 cum laude**

Additional Qualifications

Computer Skills

Operative Systems	Linux, Windows, Mac OS
Computer Languages	Python, C/C++, bash for command line, Fortran 90
Scientific Software	Mathematica, Matlab, Maple, Gnuplot, LaTex
Scientific codes	RNS, JETSPIN
Personal codes	CLASS_ROT: *build numerical configurations of equilibrium of differentially rotating polytropes in newtonian gravity (based of method by Eriguchi and Mueller)*

Languages

Italian	Native
English	Spoken (fluent), listen comprehension (very good), written (very good)

Employment History

April 2016–in progress (6 months)	Short term cooperation agreement with IAC group of CNR in Rome. Collaborator of doc.s Sauro Succi, Marco Lauricella and Giuseppe Pontrelli, working with JETSPIN public Fortran code, to numerically model electrospinning processes (industrially used to produce polymeric nano–fibre). Modifications of JETSPIN code in order to take into account a fixed magnetic field and a rotating electric field orthogonal to the injection's direction. Statistical analysis of results in order to understand physical features of the process.

Scientific Schools and Talks

Conferences

July 20-24, 2015	"14th Italian-Korean Symposium on Relativistic Astrophysics", Pescara (Italy)
July 12-18, 2015	"Fourteenth Marcel Grossmann Meeting - MG14", Rome (Italy)
September 8-19, 2014	"Third BEGO Rencontres-IRAP PhD Erasmus Mundus School", Nice (France)
May 11-16, 2014	"Supernovae, Gamma-ray bursts and the Induced gravitational collapse", Les Houches (France)
Frebruary 23-March 2 2014	Nice Winter school, Nice (France)

September 2013	Nice BEGO school, Nice (France)
Spring 2013	ICRANet meeting on Relativistic Astrophysics on the Occasion of the 50th anniversary of the Kerr solution of the Einstein's equations, Pescara (Italy)
May 2013	Nice BEGO school, Nice (France)

Talks

July 20-24, 2015	*Models for equilibrium configurations of rotating self-gravitating Polytropic Stars*, during "14th Italian-Korean Symposium on Relativistic Astrophysics", Pescara (Italy)
July 20-24, 2015	*Structure And Stability For Realistic Rapidly Rotating NS: Full GR Treatment*, during "14th Italian-Korean Symposium on Relativistic Astrophysics", Pescara (Italy)
July 12-18, 2015	*Structure And Stability For Realistic Rapidly Rotatng NS: Full GR Treatment*, during "Fourteenth Marcel Grossmann Meeting - MG14", Rome (Italy)
September 8-19, 2014	*Rapidly Rotating Neutron Stars in full GR*, during "Third BEGO Rencontres-IRAP PhD Erasmus Mundus School", Nice (France)

━━━━━━━ Scientific publications and work in progress

Published

2015	*Angular Momentum Role in the Hypercritical Accretion of Binary-Driven Hypernovae*, L. M. Becerra, F. Cipolletta, C. L. Fryer, J. A. Rueda, R. Ruffini, ApJ, 812, 100, Published 13 October 2015
2015	*Fast rotating neutron stars with realistic nuclear matter equation of state*, F. Cipolletta, C. Cherubini, S. Filippi, J. A. Rueda, R. Ruffini, Phys. Rev. D 92, 023007, Published 13 July 2015
2012	*COLLAPSE OF SPHERICAL CHARGED ANISOTROPIC FLUID SPACETIMES*, Federico Cipolletta and Roberto Giambó 2012, Class. Quantum Grav. 29 245008. doi:10.1088/0264-9381/29/24/245008, Received 3 August 2012, in final form 15 October 2012, Published 19 November 2012.

In Preparation

On the mostly bound circular orbit around rapidly rotating neutron stars, Authors: F. Cipolletta, J. A. Rueda, R. Ruffini

On the accuracy of the Hartle-Thorne approximation in realistic rapidly rotating neutron stars, Authors: L. M. Becerra, R. C. Rodrigues, F. Cipolletta, J. A. Rueda, R. Ruffini

On the equilibrium configuration for Newtonian rotating polytropes with a multi–parametric differential rotation law, Authors: F. Cipolletta, S. Filippi, C. Cherubini

Magnetic Field and Rotating Orthogonal Electric Field in electrospinning processes, Authors: F. Cipolletta, M. Lauricella, G. Pontrelli, S. Succi.

▬ Awards

Oct 2012-Oct 2015	IRAP PhD Scholarship, in Sapienza University of Rome
2009-2011	Excellence Scholarship, in University of Camerino, during Master Degree
2006-2009	Excellence Scholarship, in University of Camerino, during Bachelor Degree