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Vincenzo Vitagliano CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	VITAGLIANO
NOME	VINCENZO
DATA DI NASCITA	[Giorno, mese, anno] 29 DICEMBRE 1981

INSERIRE IL PROPRIO CURRICULUM
(non eccedente le 30 pagine)

Personal information

Full Name Vincenzo Vitagliano
Birthplace Naples (NA) – Italy
Date of Birth December 29th, 1981
ORCID 0000-0001-7724-8133
ResearcherID K-8657-2015
E-mail vitaglia@gmail.com

Education

2007–2011 **Ph.D. in Physics**, SISSA, Trieste, Italy, Thesis Title: *Gravity beyond General Relativity*.
Advisor: Prof. Stefano Liberati
2000–2007 **Master in Physics**, “Federico II” University of Naples, Italy, Monograph Title: *Soluzioni a simmetria sferica in teorie estese della gravitazione*.
First Class Honours. Advisor: Prof. Salvatore Capozziello

Work Experience

Dec 2019– Marie Skłodowska-Curie Fellow – MSCA Cofund “Beatriu de Pinos” program ongoing at UAB - Universitat Autònoma de Barcelona, Spain
Nov 2017– Japan Society for the Promotion of Science – JSPS fellow at Keio University, Tokyo, Japan
Oct 2019
Jan 2012– Fundação para a Ciência e a Tecnologia – FCT fellow at CENTRA - Centro de Astrofísica Relativística, Instituto Superior Técnico, Lisbon, Portugal
Oct 2017

List of Competitive Grants

Dec 2019– Marie Skłodowska-Curie Cofund – Beatriu de Pinos, 145k euro, Spain
Nov 2022
Nov 2019– Polish National Agency for Academic Exchange (NAWA) – Ulaam grant, 305k
Oct 2021 PLN (~ 70k euro), Poland [DECLINED]
Nov 2017– Japan Society for the Promotion of Science – JSPS grant No. P17763, 9M yen
Oct 2019 (~ 75k euro), Japan
Nov 2017– KAKENHI project grant No. 17F17763, 2.2M yen (~ 20k euro), Japan
Oct 2019
Sep 2014– Research Grant from Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT) No. 3150639, Chile, 75M CLP (~ 100k euro) [DECLINED]
Sep 2017
Jan 2015– Research Grant No. SFRH/BPD/77678/2011R from Fundação para a Ciência e a Tecnologia (FCT), Portugal (55k euro)
Oct 2017
Jan 2012– Research Grant No. SFRH/BPD/77678/2011 from Fundação para a Ciência e a Tecnologia (FCT), Portugal (55k euro)
Dec 2014

Honours & Prizes

- 2020 Habilitation as Associate Professor in Mathematical Physics, MIUR – Italian Ministry for the University and Research
- 2020 Habilitation as Associate Professor in Theoretical Physics, MIUR – Italian Ministry for the University and Research
- 2019 Reviewer for the American Mathematical Society
- 2018 Finalist for the Falling Walls Lab (Science communication), Japan
- 2007 First class honours, laurea *Summa cum Laude*, Univ “Federico II”, Naples, Italy
- 2007 Second Prize COINOR – Unina award for Science Communication
- 2006 Honourable mention COINOR – Unina award for Science Communication

Teaching Experience

- 2018 **Science of Cooking [TA]**, 2nd Semester – 2017-18, Keio University, 2h/week.
- 2017 **Geometry, Topology and Quantum Field Theory**, 2nd Semester – 2016-17, IST, 2h/week.
- 2017 **Advanced Methods in Classical and Quantum Mechanics**, 2nd Semester – 2016-17, IST, 4h/week.
- 2017 **General Relativity**, 1st Semester – 2016-17, IST, 6h/week.
- 2016 **Geometry, Topology and Quantum Field Theory**, 2nd Semester – 2015-16, IST, 2h/week.
- 2016 **Advanced Methods in Classical and Quantum Mechanics**, 2nd Semester – 2015-16, IST, 4h/week.
- 2009 **Linear Algebra [TA]**, 2nd Semester – 2009-10, UoTrieste, 2h/week.
- 2007 **Physics Lab for Biologists [TA]**, 2nd Semester – 2006-07, UoNaples, 2h/2weeks.

Further Teaching

- 11-15 May 2015 **Lecturer 4th Amazonian Workshop in Analogue Gravity and Black Holes**, Belem do Para, Brazil.
- 5-10 Sep 2014 **Lecturer 7th Summer School in Astrophysics and Gravitation**, IST, Lisbon, Portugal.
- 15-18 Jul 2013 **Lecturer PandA School in Strong Gravity**, University of Mons, Belgium.
- 4-8 Sep 2012 **Lecturer 6th Summer School in Astrophysics and Gravitation**, IST, Lisbon, Portugal.

Thesis supervision

- 2014 **Paulo Luz**, - MSc.
- 2016 **Marianne Lapierre-Léonard**, - BSc.
- 2018 **Antonio Carvalho**, - MSc.

Institutional Responsibilities

- Oct 2010–
ongoing **Referee (more than 50 papers) for:** *Nature Communications, Physical Review Letters, Physical Review D, Classical and Quantum Gravity, Journal of Cosmology and Astroparticle Physics, General Relativity and Gravitation, International Journal of Modern Physics D, European Physical Journal C, Foundations of Physics.*
- Aug 2014–
Aug 2016 **Organiser of the Seminars Activities for the Department of Mathematics and Physics,** *Istituto Superior Tecnico (IST), Lisbon, Portugal.*
- Oct 2019–
ongoing **Member WG3,** *COST action GWverse.*
- Oct 2019–
ongoing **Member WG1 + Core Member Committee for outreach and gender activities,** *COST action QG-MM.*

Computer skills

Programming Python (Anaconda Open Distribution)

O.S. Linux, Windows

Scientific SW Mathematica

Languages

Italian Native

English Fluent

Portuguese Fluent

Spanish Fluent

Organization of Scientific Meetings

21-22 Dec '15 **Black Holes Workshop VIII,** *Member of the Local Organising Committee.*
Lisbon, Portugal

18-19 Dec '15 **GR 100,** *Member of the Local Organising Committee.*
Lisbon, Portugal

24-25 Nov '11 **X Convegno Nazionale sulla Comunicazione della Scienza,** *Scientific and Organising Coordinator.*
Trieste, Italy

24 Nov '10 **Workshop on Science Journalism and Power in 21st Century,** *Member of the Local Organising Committee.*
Trieste, Italy

Other Work Experiences

2009-11 **Collaboration with the Master in Science Communication,** *SISSA, Trieste, Italy.*

2007-08 **Part-time Librarian,** *SISSA, Trieste, Italy.*

Press and Outreach

An enthusiastic involvement in public engagement, carried on since the early stage of my career, leads me to explore new forms of interaction with a non-specialist and diversified audience. The very productive collaboration with the M.Sc in Science Communication organised by SISSA, Trieste, Italy in the period 2009-2011 (225 hours of part-time job, 150 hours in 2009-2010 and 75 hours in 2010-2011) gave me the opportunity to refine some skills in communicating science. The experience has been enriched by two events during the 2010 and 2011 editions of the “European Night of Researchers”, with the organisation of two street games to make people aware of the condition of the Italian research and to advertise the role of the researchers in the contemporary society.

In 2013-2014, I collaborated with the renown Portuguese actor and theatrical director Gonalo Waddington to the script of the comedy *Albertine, o continente celeste*, a reflection on time and space in the Proust’s masterpiece “In Search of Lost Time” and inspired by the thinking of mathematicians and physicists. The show has been co-produced from Teatro Nacional So Joo in Oporto and Teatro Municipal So Luiz in Lisbon, Portugal and has been performed since Sep 2014 in the most important theatres in Portugal. A book with the same title has been published under Abysmo Editora.

During the Autumn 2015, I succeeded in signing an agreement with the renown international retail chain FNAC, starting a joint project of a new film festival, *Astro & FNAC* (in honour of the Italian writer Italo Calvino’s tale *Moon and GNAC*). The festival took place between February and May 2016, with four shows (as many as the *scifi* movies played) to celebrate the revolutionary astrophysical discoveries of gravitational waves. The events were free and open to everybody, each of which followed by a one-hour questions and answers session with internationally recognised researchers, expressly invited for the occasion.

During September/October 2016 I provided scientific advice for the Portuguese version of Nick Payne’s play ‘Constellation’, which culminated with a special show including a Q&A’s session chaired by me at Teatro Aberto, Lisbon.

In May 2018, I have been one of the finalists at the Falling Walls Lab 18, organised in Tokyo by Euraxess and the German Research and Innovation Forum. Based on the idea of ‘breaking down various walls’ around the world, this event provides students, young researchers and professionals of all disciplines and nationalities an opportunity to present their research projects or ideas in 3 minutes and in English, in front of a non-specialised audience.

Full List of Publications

- [18] A. Flachi and V. Vitagliano
“The Casimir effect for nonlinear sigma model and the Mermin-Wagner-Hohenberg-Coleman theorem,”
arXiv: 2006.03822; submitted to *Journal of Physics A: Mathematical and Theoretical*
- [17] A. Flachi and V. Vitagliano
“Symmetry breaking and lattice kirigami: finite temperature effects,”
Phys. Rev. D 99 no.12, 125010 (2019)
- [16] L. Barack et al, (including V. Vitagliano)
“Black holes, gravitational waves and fundamental physics: a roadmap,”
Class. Quant. Grav. 36, no. 14, 143001 (2019)
- [15] E. V. Castro, A. Flachi, P. Ribeiro and V. Vitagliano,
“Symmetry Breaking and Lattice Kirigami ,”
Phys. Rev. Lett. 121, no. 22, 221601 (2018)
- [14] P. Luz and V. Vitagliano,
“Raychaudhuri equation in spacetimes with torsion,”
Phys.Rev. D 96 no.2, 024021 (2017)
- [13] I. Saltas and V. Vitagliano,
“Quantum corrections for the cubic Galileon in the covariant language ,”
JCAP 1705 no.05, 020 (2017)
- [12] I. Saltas and V. Vitagliano,
“Covariantly Quantum Galileon,”
Phys.Rev. D 95 no.10, 105002 (2017)
- [11] A. Prain, V. Vitagliano, V. Faraoni and M. Lapierre-Leonard,
“Hawking-Hayward quasi-local energy under conformal transformations,”
Class. Quant. Grav. 33, no. 14, 145008 (2016)
- [10] A. Flachi, K. Fukushima and V. Vitagliano,
“Geometrically induced magnetic catalysis and critical dimensions,”
Phys. Rev. Lett. 114, no. 18, 181601 (2015)
- [9] V. Faraoni, V. Vitagliano,
“Thermodynamics of apparent horizons under conformal and Kerr–Schild maps,”
Can. J. Phys. 93, 999 (2015).
- [8] V. Faraoni and V. Vitagliano,
“Horizon thermodynamics and spacetime mappings,”
Phys. Rev. D 89, no. 6, 064015 (2014)

- [7] V. Vitagliano,
“The role of nonmetricity in metric-affine theories of gravity,”
Class. Quant. Grav. **31**, no. 4, 045006 (2014)
- [6] V. Faraoni, V. Vitagliano, T. P. Sotiriou and S. Liberati,
“Dynamical Apparent Horizons in Inhomogeneous Brans-Dicke Universes,”
Phys. Rev. D **86**, 064040 (2012)
- [5] J. Q. Xia, V. Vitagliano, S. Liberati and M. Viel,
“Cosmography beyond standard candles and rulers,”
Phys. Rev. D **85**, 043520 (2012)
- [4] V. Vitagliano, T. P. Sotiriou and S. Liberati,
“The dynamics of metric-affine gravity,”
Annals Phys. **326**, 1259 (2011) [*Annals Phys.* **329**, 186 (2013)]
- [3] V. Vitagliano, T. P. Sotiriou and S. Liberati,
“The dynamics of generalized Palatini Theories of Gravity,”
Phys. Rev. D **82**, 084007 (2010)
- [2] V. Vitagliano, J. Q. Xia, S. Liberati and M. Viel,
“High-Redshift Cosmography,”
JCAP **1003**, 005 (2010)
- [1] V. Vitagliano, S. Liberati and V. Faraoni,
“Averaging inhomogeneities in scalar-tensor cosmology,”
Class. Quant. Grav. **26**, 215005 (2009)

--- List of Proceedings

- [P6] A. Flachi, V. Vitagliano, “Interacting Quantum Field Theories and Topological Defects,”
to appear in *Proceedings, 15th MG Meeting on GR, Rome, Italy, July 1-7, 2018*.
- [P5] A. Flachi, V. Vitagliano, “Cosmic strings, deformed lattices and spontaneous symmetry
breaking,” *J. Phys. Conf. Ser.* **1275**, no. 1, 012030 (2019).
- [P4] V. Vitagliano, “On the dynamical content of MAGs,”
J. Phys. Conf. Ser. **600**, no. 1, 012043 (2015).
- [P3] V. Vitagliano, “Cosmography with high-redshift probes,”
Proceedings of the International Astronomical Union **10**, (S306), 210 (2014).
- [P2] V. Vitagliano, V. Faraoni, T. P. Sotiriou and S. Liberati, “Apparent horizons in Clifton-
Mota-Barrow inhomogeneous universe,” *Proceedings of the 13th MG Meeting on GR*.
- [P1] V. Vitagliano, J. Q. Xia, S. Liberati and M. Viel, “High- z cosmography at a glance,”
Proceedings of the 13th MG Meeting on GR.

Conferences, Workshops and Seminars

Selected Participations

- Mar 2020 **[T41] VI Cosmology and the Quantum Vacuum.**
Barcelona, Spain
- Jul 2019 **[T40] University of Oviedo**, [Invited seminar].
Oviedo, Spain
- May 2019 **[T39] Northumbria University.**
Newcastle, UK
- Apr 2019 **[T38] UAM**, [Invited seminar].
Madrid, Spain
- Apr 2019 **[T37] University of Tours**, [Invited seminar].
Tours, France
- Sep 2018 **[T36] DICE 2018.**
Castiglione della Pescaia, Italy
- Sep 2018 **[T35] ICMM.**
Madrid, Spain
- Sep 2018 **[T34] EREP 2018.**
Palencia, Spain
- Aug 2018 **[T33] OIST**, [Invited seminar].
Okinawa, Japan
- Jul 2018 **[T32] Avenues of QFT in Curved Spacetime**, [Plenary speaker].
Tokyo, Japan
- Jan 2018 **[T31] Trento University.**
Trento, Italy
- Nov 2017 **[T30] JGRG 2017.**
Hiroshima, Japan
- Sep 2017 **[T29] EREP 2017.**
Malaga, Spain
- Sep 2017 **[T28] IV Cosmology and the Quantum Vacuum.**
Segovia, Spain
- Jan 2017 **[T27] FCUL**, [Invited seminar].
Lisbon, Portugal
- Jun 2016 **[T26] ESA-ESAC**, [Invited Colloquium].
Madrid, Spain
- Dec 2015 **[T25] VIII Black Holes Workshop.**
Lisbon, Portugal
- Dec 2015 **[T24] GR 100.**
Lisbon Portugal

Sep 2015 **[T23] ERE 2015**, [Plenary speaker].
Palma de Mallorca, Spain

Jul 2015 **[T22] MG14**, [Invited speaker].
Rome, Italy

May 2015 **[T21] UFABC**, [Invited seminar].
Sao Paulo, Brazil

May 2015 **[T20] Amazonian workshop on GR**, [Invited speaker].
Belem do Para, Brazil

Feb 2015 **[T19] GR Meeting of Beira Interior**, [Invited speaker].
Covilha, Portugal

Oct 2014 **[T18] FCUL**, [Invited seminar].
Lisbon, Portugal

Sep 2014 **[T17] ERE 2014**.
Valencia, Spain

Aug 2014 **[T16] Charles University**, [Invited seminar].
Prague, Czech Republic

May 2014 **[T15] Statistical Challenges in 21st Century Cosmology**.
Lisboa, Portugal

Apr 2014 **[T14] IberiCos2014**.
Aveiro, Portugal

Dec 2013 **[T13] VI Black Holes Workshop**.
Braga, Portugal

Jul 2013 **[T12] PandA school in Strong Gravity**, [Invited speaker].
Mons, Belgium

Dec 2012 **[T11] STAR**, [Invited seminar].
Bishop's University, Sherbrooke, Quebec, Canada

Jul 2012 **[T10] MG13**, [talk 2].
Stockholm, Sweden

Jul 2012 **[T9] MG13**, [talk 1].
Stockholm, Sweden

Apr 2012 **[T8] IberiCos2012**.
Lisboa, Portugal

Dec 2011 **[T7] IV Black Holes Workshop**.
Aveiro, Portugal

Dec 2011 **[T6] IST**.
Lisboa, Portugal

May 2011 **[T5] DESY**, [Invited seminar].
Hamburg, Germany

Apr 2011 **[T4] IberiCos2011**.
Salamanca, Spain

- Dec 2010 **[T3] Winter School in Cosmology.**
Passo del Tonale, Italy
- Jul 2010 **[T2] GR19.**
Mexico City, Mexico
- Sep 2009 **[T1] DAMTP.**
Cambridge, UK

Schools

- 15-18 Jul **PandA school in Strong Gravity.**
2013 Mons, Belgium
- 6-17 Jun **Summer School on Particle Physics.**
2011 ICTP, Trieste, Italy
- 6-10 Dec **4th TRR33 Winter School on Cosmology.**
2010 Passo del Tonale, Italy
- 19-30 Jul **Summer School in Cosmology.**
2010 ICTP, Trieste, Italy
- 15-26 Jun **Summer School on Particle Physics in the LHC ERA.**
2009 ICTP, Trieste, Italy
- 26-29 Jan **SIGRAV School in Cosmology and INFN Formation School.**
2009 GGI, Florence, Italy
- 21 Jul-1 Aug **Summer School in Cosmology.**
2008 ICTP, Trieste, Italy

Data

10 Luglio 2020

Luogo

Barcelona