



Personal information

Surname(s) / First name(s)

Email(s)

Nationality(-ies)

Francia Dario

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Italian

Academic career

December 2021 – present

Researcher
(Ricercatore Rtdb)
Roma Tre University

2018 – 2021

Research Fellow Enrico Fermi Center
Roma Tre University

2013 – 2018

Assistant professor of Theoretical Physics
(Ricercatore TDA)
Scuola Normale Superiore, Pisa

September 2011 – May 2013

Research Fellow Enrico Fermi Center
Scuola Normale Superiore, Pisa

September 2010 – August 2011

Post-doc EURYI Grant GACR EYI/07/E010
Institute of Physics, Academy of Sciences of the Czech Republic, Prague

September 2008 – August 2010

Post-doc UFR de Physique & CNRS
Université Paris VII, AstroParticules et Cosmologie (APC), Paris

September 2006 – August 2008

Post-doc of Marie Curie Research Training Network
Chalmers University of Technology, Gothenburg

June 2006 – August 2006

Research Fellow
Physics Department, University of Rome Roma Tre

January 2006 – April 2006

Marie Curie Visiting Research Fellow
A. Einstein Institute - Max Planck Institute, Golm (Germany)

Education and pre-doctoral positions

February 2006

Ph. D. in Theoretical Physics (mention: Excellent)
University of Rome Roma Tre
Advisor: prof. A. Sagnotti – Faculty: prof. V. Lubicz

2002

INFN pre-doctoral fellow
University of Rome Tor Vergata

July 2001 Laurea degree in Theoretical Physics (Summa cum Laude)
University of Rome La Sapienza
Advisor: prof. K. Yoshida

Invited talks at conferences and workshops

July 2023 XII International Symposium on Quantum Theory and Symmetries (QTS12 & ISQS27)
Czech Technical University, Prague, July 24-28 2023

July 2023 Quantum Field Theory and Gravity (QFTG2023)
Center for Theoretical Physics, TSPU Tomsk, July 10-14 2023

Summer 2021 Geometry for Higher Spin Gravity: Conformal Structures, PDEs, and Q-manifolds (*key participant*)
Erwin Schrödinger International Institute for Mathematics and Physics, Vienna, August 23-September 17 2021

June 2021 Quarks 2021 & Sakharov's Centennial
Lebedev Institute, Moscow & online June 6-12 2021

June 2020 Joint Belgian Theoretical Seminar
KUL - ULB - UMons - VLB, June 3 2020

December 2019 Annual Meeting of Enrico Fermi Ctr
Enrico Fermi Ctr, Roma, December 11-12 2019

October 2019 Higher-spin Gravity - Chaotic, Conformal and Algebraic Aspects
Asian-Pacific Center for Theoretical Physics (APCTP) Pohang South Korea, September 23-October 2 2019

Spring 2019 Higher spins and Holography (*key participant*)
Erwin Schrödinger International Institute for Mathematics and Physics, Vienna, March 11- April 4 2019

December 2018 New Approaches to Quantum Gravity
AEI Potsdam, Germany

September 2018 SIGRAV 2018 – XXIII SIGRAV Conference on General Relativity and Gravitational Physics
Santa Margherita di Pula, Cagliari, September 9 - 15 2018

July 2018 Quantum Field Theory and Gravity (QFTG2018)
Center for Theoretical Physics, TSPU Tomsk, Russia, July 30 - August 5 2018

May 2018 Quarks 2018
20th edition of the Quarks International Seminar, Valday, Russia, May 27 - June 2, 2018

April 2018 Higher-Spin Theory: Past and Future - Mini workshop on the status and perspective of higher-spin theories
IHP Paris, April 25, 2018

August 2017 6th International Conference on New Frontiers in Physics (ICNFP 2017)
Workshop on "Future of Fundamental Physics"
Orthodox Academy of Crete, August 27-29 2017

August 2017 SQS 2017, Supersymmetries and Quantum Symmetries
Bogoliubov Laboratory of Theoretical Physics JINR, Dubna, July 31 - August 5 2017

July 2017 New ideas on higher spin gravity and holography
Kyung Hee University, Seoul, July 9 - 16 2017

June 2017 Ginzburg Centennial Conference on Physics
Lebedev Institute, Moscow, May 29, June 3, 2017

April 2017 Workshop on Higher-Spin Gauge Theories
Service de Mécanique et Gravitation, Mons U. Belgium, April 26 - 28 2017

August 2016 QFTG2016 Quantum Field Theory and Gravity 2016
TSPU Tomsk, Russia. August 1 - 7 2016

June 2016 QUARKS 2016 - 19th International Seminar on High Energy Physics
Pushkin, Russia. May 29 - June 4 2016

May 2016 Higher Spin Theory and Duality (*key participant*)
Munich Institute for Astro- and Particle Physics (MIAPP) - 2-27 May, 2016

April 2016 Workshop on Higher-Spin Gauge Theories

November 2015	Service de Mécanique et Gravitation, Mons U. Belgium, April 21 - 22 2016 VII Round Tables Italy-Russia@Dubna <i>Hundred years of GR's birth, SUGRA gets into its forties</i> <i>on the occasion of the 60th jubilee of JINR</i> Bogoliubov Laboratory of Theoretical Physics JINR, Dubna, November 24-28, 2015
November 2015	Workshop "Higher Spin Theory and Holography 3" Moscow, Lebedev Institute, November 23-25, 2015
September 2015	Workshop "Particles, Fields and Strings" Baku, Azerbaijan, September 29 - October 2, 2015
August 2015	Workshop on Higher Spin Penn State University, Institute for Gravitation and the Cosmos, USA, August 27-29, 2015
May 2015	SFT 2015, String Field Theory and Related Aspects VII Chengdu, China, May 11-15, 2015
September 2014	Frontiers in Field and String Theory Yerevan, Armenia, September 22-26, 2014
July 2014	SFT 2014, String Field Theory and Related Aspects VI Trieste, Italy, July 28 - August 1, 2014
June 2014	Quarks-2014, 18th International Seminar on High Energy Physics Suzdal, Russia, June 2-8, 2014
July 2013	SQS 2013, Supersymmetries and Quantum Symmetries Bogoliubov Laboratory of Theoretical Physics JINR, Dubna, July 29 - August 3 2013
February 2013	Meeting of the Scientific Committee of Centro Fermi Roma, February 14, 2013
February 2013	2nd Solvay Workshop on "Higher Spin Gauge Theories Brussels, February 5-8 2013
December 2012	St. Nicolas seminar on Strings and Higher spins Institute of Physics, Academy of Sciences of the Czech Republic Prague, December 6,7 2012
October 2012	XX SIGRAV Conference on General Relativity and Gravitational Physics Napoli, October 22 - 26 2012
September 2012	Workshop on Higher-Spin gravities and related topics Mons, Belgium, September 4 - 6 2012
July 2012	ICHEP2012 - 36th International Conference on High Energy Physics Melbourne, Australia, July 4 - 11 2012
May 2012	Ginzburg Conference on Physics Lebedev Institute, Moscow, May 28, June 2, 2012
April 2012	Seconda Conferenza dei Progetti del Centro Fermi Salone delle Conferenze del Ministero dell'Interno, Roma, Italy, April 19-20, 2012
January 2012	Theory of Fundamental Interactions 2012 SISSA, Trieste, January 9 - 11 2012
September 2011	SFT 2011, String Field Theory and Related Aspects IV Institute of Physics, Academy of Sciences of the Czech Republic, Prague, September 20 - 24 2011
July 2011	SQS 2011, Supersymmetries and Quantum Symmetries Bogoliubov Laboratory of Theoretical Physics JINR, Dubna, July 18 - 23 2011
October 2010	SFT 2010, String Field Theory and Related Aspects III Yukawa Institute for Theoretical Physics, Kyoto, Japan, October 18-22 2010
September 2010	XIX SIGRAV Conference on General Relativity and Gravitational Physics Scuola Normale Superiore, Pisa, September 27 - October 1 2010
July 2010	QFTG2010, Quantum Field Theory and Gravity Tomsk Pedagogical State University, Tomsk, Russia, July 5-9 2010
March 2010	XVI Conference on Present Problems in Theoretical Physics Vietri sul Mare, Italy, March 26-31 2010
March 2010	Workshop on Higher Spin Field Theory Mons, Belgium, March 24-25 2010

February 2010	Journées P2I - Physique des deux infinis Institut d'Astrophysique de Paris, Paris, February 4-5 2010
September 2009	1st Mediterrean Conference on Classical and Quantum Gravity Kolymbari, Crete, September 14-19 2009
May 2009	4th International Sakharov Conference on Physics Lebedev Institute - Moscow, May18-23 2009
April 2009	New Perspectives in String Theory, workshop of the G. Galilei Institute for Theoretical Physics (GGI) Arcetri, Firenze, Italy, April 20-May 10 2009
April 2009	XV Conference on Present Problems in Theoretical Physics Vetri sul Mare, Italy, April 6-8 2009
July 2008	Strings@Amsterdam - Eurostrings 2008 University of Amsterdam, Netherlands, June 30 - July 4 2008
October 2007	III EU-RTN workshop Constituents, fundamental forces and symmetries of the universe Valencias, Spain, October 1-5 2007
September 2007	Eötvös Superstring Workshop 2007, European Superstring Theory Network Budapest, Hungary, September 3-7 2007
July 2007	Eurostring 2007, midterm meeting of the European Superstrings network Orthodox Academy of Crete - Kolymbari, July 1-4 2007
May 2007	Cortona 2007 - XXIX Conference in Theoretical Physics Cortona, Italy, May 28-June 1 2007
September 2006	Eurostring workshop II Masaryk University, Brno, Czech Republic, September 10-17 2006
November 2005	Physics of fundamental interactions, Gravity and Strings University of Pisa, Italy, November 4-5 2005
October 2005	First Young researchers workshop of the European Superstring Theory Network Heraklion, Crete, October 17-28 2005
October 2001	Non-Perturbative Renormalization Group Aspects in (SUSY) Gauge Theories University of Rome, La Sapienza, October 29-31 2001

Projects and grants

Participation to projects involving international collaborations

2022-present	Local coordinator for INFN IS GSS at Roma Tre U
2017-2021	Participation to INFN IS GSS
06/2016 - 06/2018	Participation to the project " <i>Supersymmetry breaking with fields and branes</i> " - Scuola Normale Superiore; collaborations: CERN, École Polytechnique, LNF-INFN, Seoul National U, ULB Bruxelles, U Milano Bicocca, U Ferrara, U Padova, Tokyo Metropolitan U, Mons U, Tours U
04/2014 - 04/2016	Participation to the project " <i>Aspects of Supersymmetry Breaking and Locality for Gauge Fields and Strings</i> " - Scuola Normale Superiore; collaborations: INAF and INFN Bologna, LNF-INFN, Seoul National U, Ferrara U, Tokyo Metropolitan U, Roma Tor Vergata U, Institute of Physics - Czech Academy of Sciences, Prague
01/2014 - 12/2016	Participation to INFN IS ST&FI
01/2013 - 12/2013	Participation to INFN IS TV12
10/2011 - 10/2013	Participation to PRIN 2009: "Simmetrie dell'Universo e delle Interazioni Fondamentali"

Individual grants

02/2018 - 06/2018	Project: "Symmetries, locality and infrared phenomena" Scuola Normale Superiore
03/2017 - 02/2018	Project: "Infrared phenomena and locality in fundamental physics" - Scuola Normale Superiore
09/2011 - 05/2013	Project: "On the geometry of fundamental interactions: arbitrary-spin particles in String Theory and beyond" - Centro Studi e Ricerche Enrico Fermi

Awards

- SIGRAV prize 2012 for Classical and Quantum Gravity

Italian Society for General Relativity - <http://sigrav.na.it>

Two SIGRAV Prizes, one for Classical and Quantum Gravity and one for Astrophysics, Cosmology and Experimental Gravity, are awarded every two years by the Italian Society of General Relativity and Gravitation to Italian scientists aged not more than 40 years who have given relevant contributions to General Relativity and Gravitational Physics.

- Qualified for the position of Associate Professor in Theoretical Physics in Italy:

ASN, SSD 02/A2 - II fascia, Bando 2012 – valid to 08/01/2020

ASN, SSD 02/A2 - II fascia, Bando 2016-2018 – valid to 13/07/2027

- European Doctorate Label

title of merit attributed to doctoral thesis whose research was partially carried out at EU institutions outside Italy, after the positive evaluation of three non- Italian EU experts (Prof. Marc Henneaux - ULB Brussels, Chris M. Hull - Imperial College London, Jihad Mourad - APC Paris VII).

Organisation of scientific events

November-December 2023	LACES - “Lezioni Avanzate di Campi e Stringhe” GGI school for graduate students GGI, Florence November, 27 - December 15
May 2018	New Frontiers in Theoretical Physics - XXXVI Meeting on Theoretical Physics Cortona, May 18-20
April 2018	Higher-Spin Theory: Past and Future - Mini workshop on the status and perspective of higher-spin theories IHP Paris, April 25
February 2018	IX Tuscan Meeting on Theoretical Physics University of Pisa, February 7
March 2017	VIII Tuscan Meeting on Theoretical Physics GGI Arcetri, March 23
October 2011 - August 2018	Co-organiser of the theory group seminars Class of Sciences - SNS, Pisa
October 2016	VII Tuscan Meeting on Theoretical Physics Scuola Normale Superiore, October 4
May 2016	New Frontiers in Theoretical Physics (“Cortona 2016”) GGI, Arcetri, Firenze – May 17-20 2016
February 2016	VI Tuscan Meeting on Theoretical Physics University of Pisa and INFN, February 4
October 2015	V Tuscan Meeting on Theoretical Physics University of Florence, October 7
February 2015	IV Tuscan Meeting on Theoretical Physics Scuola Normale Superiore, Pisa, February 27
December 2014	X Avogadro Meeting on Strings, Supergravity and Gauge theories Scuola Normale Superiore, Pisa, December 17-19, 2014
October 2014	III Tuscan Meeting on Theoretical Physics University of Pisa and INFN, October 14
July 2014	SFT 2014, String Field Theory and Related Aspects VI Trieste, July 28 - August 1, 2014
May 2014	Cortona 2014 - Frontiers in Theoretical Physics Cortona, May 18-20

February 2014	II Tuscan Meeting on Theoretical Physics University of Florence, February 25
December 2013	IX Avogadro Meeting on Strings, Supergravity and Gauge theories SISSA, Trieste Italy, December 18-20, 2013
November 2013	I Tuscan Meeting on Theoretical Physics Scuola Normale Superiore, Pisa November 19
May 2013	Symmetries of the Universe and of the Fundamental Interactions Scuola Normale Superiore, Pisa, 16-17 May 2013
March-May 2013	Higher Spins, Strings and Dualities, Galileo Galilei Institute (GGI) workshop Arcetri, Firenze, March-May 2013
December 2012	VIII Avogadro Meeting on Strings, Supergravity and Gauge theories Scuola Normale Superiore, Pisa, Italy, December 19-21, 2012
September 2012	ERC SUPERFIELDS - Workshop on Supersymmetry, Quantum Gravity and Gauge Fields Scuola Normale Superiore, Pisa, Italy, September 12-14, 2012
September 2011	SFT 2011, String Field Theory and Related Aspects IV Institute of Physics, Academy of Sciences of the Czech Republic, Prague, September 20 - 24 2011
August 2011	QTS-7, Quantum Theory and Symmetries - 7th International Conference Prague, Czech Republic, August 7-13, 2011
November 2009	Loops meet Strings - workshop Tours, France, November 2009

Selected visits to Scientific Institutions

Academy of Sciences of the Czech Republic
 Albanova University Center & Nordita
 Albert Einstein Institute MPI, Golm
 CERN
 École Polytechnique
 IFT-UAM Madrid
 IPM Tehran
 LMU Munich
 LMPT Tours
 MIAPP Munich
 Queen Mary University
 Simons Center for Geometry and Physics
 Tomsk State University
 Université de Mons
 Université Libre de Bruxelles (ULB)
 Université Paris VII - APC
 Uppsala Universitet

Additional information

Editor of International Journal of Geometric Methods in Modern Physics, World Scientific

Referee activity:

European Journal of Physics C (EPJC),
 General Relativity and Gravitation,
 Institute of Physics (IOP),
 Journal of High Energy Physics (JHEP),
 Modern Physics Letter A,
 Nuclear Physics B,
 Physics Letters B,

SIGMA
SciPost
Springer proceedings

Institutional activity:

Quality Assurance Controller for the Mathematics and Physics Department - Roma Tre U (2023)
Member of committees for Master and Ph.D. Theses.
Member of the admission committee for first-year and fourth-year undergraduate students at Scuola Normale Superiore; A.Y. 2014/15 and 2016/17.
Supervisor of students for the Master-program first-year colloquium.

Teaching

Courses delivered at Italian universities

AY 2022/2023 2021/2022	General Relativity (48h) V year undergraduate students Università degli Studi Roma Tre, Roma, Italy
AY 2022/2023 2021/2022	Introduction to Modern Physics (60h) V year undergraduate students Università degli Studi Roma Tre, Roma, Italy
AY 2022/2023 2021/2022	Analysis I - teaching assistance (40h) I year bachelor students in Engineering Università degli Studi Roma Tre, Roma, Italy
AY 2017/2018 2016/2017 2015/2016	General Relativity (52h) IV and V year undergraduate students Università degli Studi Roma Tre, Roma, Italy
AY 2017/2018 2016/2017	Advanced Mathematical Methods for Physics (52h) IV year undergraduate students Università degli Studi Roma Tre, Roma, Italy
AY 2016/2017 2015/2016	Quantum Field Theory and Gravity I (50h) IV and V year undergraduate students and graduate students Scuola Normale Superiore, Pisa, Italy
AY 2014/2015	Quantum Field Theory and Gravity I (20h) IV and V year undergraduate students and graduate students Scuola Normale Superiore, Pisa, Italy
AY 2014/2015	Quantum Field Theory and Gravity II (20h) V year undergraduate students and graduate students Scuola Normale Superiore, Pisa, Italy
AY 2013/2014	Constrained Hamiltonian Systems (20h) IV and V year undergraduate students and graduate students Scuola Normale Superiore, Pisa, Italy

AY 2011/2012	Lectures on Higher-Spin Theory (10h) <i>as part of</i> Quantum and Statistical Fields - prof. A. Sagnotti IV and V year undergraduate students and graduate students Scuola Normale Superiore, Pisa, Italy
AY 2005/2006 2004/2005 2003/2004	Partial Differential Equations (22h + tutoring) <i>as part of</i> Calculus III II year undergraduate students in Physics Università degli Studi Roma Tre, Italy
Invited lectures at International Schools or dedicated events	
July 2017	Free higher-spins in metric-like form School on new ideas on higher spin gravity and holography Kyung Hee University, Seoul, July 9-16 2017 https://sites.google.com/site/khuworkshop/home
February 2016	Lectures on Higher-Spin Theory IPM school on Higher-Spin Theory Institute for Research in Fundamental Sciences-IPM Tehran, February 15-19 2016 physics.ipm.ac.ir/conferences/hst/
September 2015	Introduction to Higher-spin Theory Lecture included in the training program of the Workshop "Particles, Fields and Strings" Baku, Azerbaijan, September 29 - October 2, 2015 https://sites.google.com/site/bakupfs2015/program
July 2014	Lectures on Higher-Spin Theory Introductory School in String Field Theory and Higher Spin Theory SISSA, Trieste, Italy http://www.sissa.it/tpp/activity/conferences/SFT2014/
October 2013	Higher-Spin Theories Mini-school on theoretical methods in particle physics The Higgs Centre for Theoretical Physics, Edinburgh, Scotland https://higgs.ph.ed.ac.uk/workshops/mini-school-theoretical-methods-particle-physics
September 2013	Higher-spin theory: problems and perspectives <i>19th "Saalburg" Summer School</i> Foundations and New Methods in Theoretical Physics Wolfersdorf, Thüringen, Germany http://www.itp.uni-hannover.de/saalburg/index.php
March 2013	Introduction to Free Higher-Spin Theories GGI school on Higher Spins, Strings and Duality The Galileo Galilei Institute for Theoretical Physics (GGI), Arcetri, Firenze, Italy http://www.ggi.fi.infn.it/
April 2012	Basics of Higher-Spin Theory Sixth International School on Field Theory and Gravitation Petrópolis, Brasil http://inspirehep.net/record/1216718

February 2009	Lectures on Higher-Spin Theory Physics Department, University of Turin, Italy
AY 2007/2008	Advanced Topics in QFT: the S-Matrix and the Cluster Decomposition Principle Chalmers University of Technology, Gothenburg, Sweden
AY 2006/2007	Advanced Topics in QFT: Functional Integrals and the Wilsonian Renormalization Group Chalmers University of Technology, Gothenburg, Sweden

Students

A.Y. 2022/2023 2021/2022	Matteo Romoli (2nd year Ph.D. Student Roma Tre U)
A.Y. 2022/2023 2021/2022	Federico Manzoni (2nd year Ph.D. Student Roma Tre U)
A.Y. 2022/2023	Marco Carducci (Master Student Roma Tre U - <i>expected completion September 2023</i>)
A.Y. 2022/2023	Valerio Descontus (Master Student Roma Tre U - <i>expected completion July 2023</i>)
A.Y. 2019/2020	Andrea Melcarne (Bachelor student Roma Tre U) Title of the thesis: <i>Entropy and area laws for free quantum fields</i> summa cum laude - 29/10/2020
A.Y. 2018/2019	Lorenzo Carducci (Master student Roma Tre U) Title of the thesis: <i>Vielbein gravity as a double copy of Yang-Mills theories</i> summa cum laude - 18/02/2020
A.Y. 2018/2019 2017/2018 2016/2017	Carlo Heissenberg (Ph.D. student Scuola Normale Superiore) Title of the thesis: <i>Topics in Asymptotic Symmetries and Infrared Effects</i> summa cum laude - 14/09/2019
A.Y. 2017/2018	Pietro Ferrero (Master student Scuola Normale Superiore) Title of the thesis: <i>On the Lagrangian formulation of gravity as a double copy of two Yang-Mills theories</i> summa cum laude - 24/07/2016
A.Y. 2015/2016	Fabrizio Del Monte (master student Pisa U) Title of the thesis: <i>From interacting spin-2 fields to multimetric supergravities</i> summa cum laude - 25/07/2016
A.Y. 2015/2016	Carlo Heissenberg (master student Scuola Normale Superiore) Title of the thesis: <i>Asymptotic symmetries in gravity and higher-spin theory</i> summa cum laude - 26/09/2016
A.Y. 2015/2016	Gabriele Lo Monaco (master student Pisa U) Title of the thesis: <i>On the interactions of Maxwell-like higher spins: Noether procedure for constrained gauge theories</i> summa cum laude - 26/09/2016
A.Y. 2012/2013	Giacomo De Palma (master student Scuola Normale Superiore) Title of the thesis: <i>Can free field theory tell us anything on String Theory?</i> summa cum laude - 16/07/2013; co-advisor with A. Sagnotti

Outreach

June 2023	"The boys of the Quest: walking to via Panisperna with Enrico, Ettore and the crew" - Tour on the life and the scientific activities of the Panisperna group; contribution to "Roma Tre per Roma", celebrating thirty years since Roma Tre University was established.
February 2023	Presentation to high-school students in the framework of "Progetto Lauree Scientifiche" - Roma Tre U: <i>"Majorana and the Panisperna boys: a travel through the invisible world from via Panisperna till the dawn of the third millennium"</i>
2018 - 2021	Collaboration with the activities of CREF (Enrico Fermi Ctr - via Panisperna), in particular with the organization of the museum dedicated to the scientific activity of Enrico Fermi and his school. Activities included co-authoring the texts for the booklet and the audioguide, and illustrating the museum during selected visits

Researcher's night 2021

Co-organization of the European Researcher's night held on Friday, September 24, 2021 at CREF in the historic headquarters of the institute in Via Panisperna, to illustrate to the public its scientific and outreach activities.

2020-06-05

Public lecture held online for the students of high school Vittorio Gassmann (Roma), on the life and the scientific activity of Ettore Majorana. Title of the lecture (in Italian): "Majorana e gli altri ragazzi".

Research interests

Classical and Quantum Field Theory, General Relativity and its extensions, Higher-Spin Theory, String Theory, Supergravity.

Citations

At the time of writing my papers have collected more than 1625 citations on the inSPIRE.net database (average citations per paper = 54,2; h-index = 22) and include ten top-cited papers.

I am single author of six peer-reviewed papers.

Publications

[Snowmass White Paper: Higher Spin Gravity and Higher Spin Symmetry.](#)

X. Bekaert (IDP Tours), N. Boulanger (U Mons), A. Campoleoni (U Mons), M. Chiodaroli (Uppsala U), D. Francia Roma Tre U and INFN Roma III, M. Grigoriev (FIAN and ITMP Moscow), E. Sezgin (Texas A&M U) and E. Skvortsov (Mons U and FIAN, Moscow)

arXiv:2205.01567 [hep-th]

[On the Lagrangian formulation of the double copy to cubic order.](#)

P. Ferrero (Oxford U., Inst. Math.), D. Francia (Enrico Fermi Ctr., Rome and Rome III U.)

JHEP 02 213 (2021); arXiv:2012.00713 [hep-th]

[On asymptotic symmetries in higher dimensions for any spin.](#)

A. Campoleoni (Mons U), D. Francia (E. Fermi Ctr and Roma Tre U), C. Heissenberg (Nordita & Uppsala U)

JHEP 12 129 (2020); arXiv:011.04420 [hep-th]

[Electromagnetic and color memory in even dimensions.](#)

A. Campoleoni (ETH Zurich), D. Francia (E. Fermi Ctr and Roma Tre U), C. Heissenberg (SNS & INFN)

Phys. Rev. D 100 no.8 (2019); [arXiv:1907.05187 [hep-th]].

[Two-Form Asymptotic Symmetries and Scalar Soft Theorems.](#)

D. Francia (E. Fermi Ctr and Roma Tre U), C. Heissenberg (SNS & INFN)

Phys. Rev. D 98 no.10 (2018); arXiv:1907.05187 [hep-th]

[Asymptotic symmetries and charges at null infinity: from low to high spins.](#)

A. Campoleoni (ETH Zurich), D. Francia (E. Fermi Ctr and Roma Tre U), C. Heissenberg (SNS & INFN)

EPJ Web Conf. 191 (2018); [arXiv:1808.01542 [hep-th]].

[Asymptotic Charges at Null Infinity in Any Dimension.](#)

A. Campoleoni (ETH Zurich), D. Francia (SNS & INFN), C. Heissenberg (SNS & INFN)

Universe 4 no. 3, 47 (2018); arXiv:1712.09591 [hep-th]

[On higher-spin supertranslations and superrotations.](#)

A. Campoleoni (ULB Brussels), D. Francia (SNS & INFN), C. Heissenberg (SNS & INFN)

JHEP 1705 120 (2017); arXiv:1703.01351 [hep-th]

[Cubic interactions of Maxwell-like higher spins.](#)

D. Francia (SNS & INFN), G. Lo Monaco (Pisa U. & Milano Bicocca U.), K. Mkrtchyan (AEI Potsdam)

JHEP 1704 068 (2017); arXiv:1611.00292 [hep-th]

Multimetric Supergravities.

F. Del Monte (Pisa U.), D. Francia (SNS & INFN), P.A. Grassi (DISIT & INFN, Torino.)
JHEP 1609 064 (2016); arXiv:1605.06793 [hep-th]

Mixed-symmetry multiplets and higher-spin curvatures.

X. Bekaert (LMPT Tours), N. Boulanger (Mons U.) and D. Francia (SNS & INFN)
J. Phys. A: Math. Theor. 48 (2015); arXiv:1501.02462 [hep-th]

On the gauge symmetries of Maxwell-like higher-spin Lagrangians.

D. Francia (SNS & INFN), S. L. Lyakhovich, A. A. Sharapov (Tomsk S. U.)
Nucl.Phys. B881 (2014) 248-268; arXiv:1310.8589 [hep-th]

Maxwell-like Lagrangians for higher spins.

A. Campoleoni (MPI Grav. Phys., Potsdam), D. Francia (Enrico Fermi Ctr., Rome, SNS & INFN)
JHEP 1303 168 (2013); arXiv: 1206.5877 [hep-th]

Generalised connections and higher-spin equations.

D. Francia (Enrico Fermi Ctr., Rome and SNS & INFN)
Class.Quant.Grav. 29 (2012) 245003; arXiv: 1209.4885 [hep-th]

Aspects of metric-like higher-spin geometry.

D. Francia (Enrico Fermi Ctr., Rome and SNS & INFN)
AIP Conf. Proc. 1483 (2012) 118-134

Low-spin models for higher-spin Lagrangians.

D. Francia (Prague, Inst. Phys.)
Prog.Theor.Phys.Suppl. 188 (2011); arXiv:1103.0683 [hep-th]

String theory triplets and higher-spin curvatures.

D. Francia (APC, Paris)
Phys.Lett. B690 (2010); arXiv:1001.5003 [hep-th]

On the Relation between Local and Geometric Lagrangians for Higher spins.

D. Francia (APC, Paris)
J.Phys.Conf.Ser. 222 (2010) 012002; arXiv: 1001.3854 [hep-th]

Unconstrained Higher Spins of Mixed Symmetry. II. Fermi Fields.

A. Campoleoni (SNS & INFN), D. Francia, J. Mourad (Paris U. VII, APC), A. Sagnotti (SNS & INFN)
Nucl.Phys. B828 (2010) 405-514; arXiv: 0904.4447 [hep-th]

Unconstrained Higher Spins of Mixed Symmetry. I. Bose Fields.

A. Campoleoni (SNS & INFN & APC, Paris & E. Polytechnique, CPHT), D. Francia (Chalmers U. Tech. & APC, Paris), J. Mourad (APC, Paris), A. Sagnotti (SNS & INFN & APC, Paris & E. Polytechnique, CPHT)
Nucl.Phys. B815 (2009) 289-367; arXiv: 0810.4350 [hep-th]

Geometric massive higher spins and current exchanges.

D. Francia (Chalmers U. Tech.)
Fortsch.Phys. 56 (2008) 800-808; arXiv: 0804.2857 [hep-th]

(A)dS exchanges and partially-massless higher spins.

D. Francia (Chalmers U. Tech.), J. Mourad (APC, Paris), A. Sagnotti (SNS & INFN)
Nucl.Phys. B804 (2008) 383-420; arXiv: 0803.3832 [hep-th]

Geometric Lagrangians for massive higher-spin fields.

D. Francia (Goteborg, ITP)

Nucl.Phys. B796 (2008) 77-122; arXiv: 0710.5378 [hep-th]

Current Exchanges and Unconstrained Higher Spins.

D. Francia (Goteborg, ITP), J. Mourad (APC, Paris), A. Sagnotti (SNS & INFN)

Nucl.Phys. B773 (2007) 203-237; arXiv: hep-th/0701163

Higher-spin geometry and string theory.

D. Francia (Rome III U. & INFN & Potsdam, Max Planck Inst.), A. Sagnotti (CERN & SNS & INFN)

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