

BY [LORENZO FATIBENE](#) PUBLISHED ON NOVEMBER 20, 2020

English Resume

[Brief CV \(IT\)](#)[Publications](#)[Curriculum](#)

Name: Lorenzo Fatibene

Birthplace: Torino, **birthdate:** 1 giugno 1968

Married, one daughter

Address: via Somalia 50, 10127 Torino (Italy)

Position Full Professor

in Mathematical Physics

Affiliation Dipartimento di Matematica

University of Torino

via C. Alberto 10

10123 Torino (Italy)

Web: [Homepage dipartimento](#)

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email: lorenzo.fatibene@unito.it

Degrees

Ph.D. in Mathematics

In 1999 at Università di Torino - Politecnico di Torino - Università di Genova

Thesis:

Gauge-naturale Formalism for classical field theories

Degree in Physics

In 1992 at Università di Torino (110/100 cum laude)

Thesis:

Noetherian Conserved Quantities in Classical Gauge Theories

Maturità Scientifica

In 1987 at *Liceo Scientifico Statale E. Majorana* di Moncalieri (Torino) (60/60).

Accademic Position

- I currently am full professor in Mathematical Physics at Department of Mathematics of the University of Torino (Italy).
- In 2018-2020 I have been a member of collegio docenti of Ph.D. in Mathematics of University of Torino - Polytechnic of Torino.
- In August 2016- July 2017 I was Visiting Professor at the University of Waterloo, Ontario. Canada.
- In 2015 I became full professor in Mathematical Physics at Department of Mathematics of the University of Torino.
- In 2011 (September-December) I was Visiting Professor at the University of Waterloo, Ontario. Canada.
- In 2011-2015 I was professore straordinario in Mathematical Physics at Department of Mathematics of the University of Torino.
- In 2009-2011 I have been a member of collegio docenti of Ph.D. in Mathematics of University of Torino - Polytechnic of Torino.
- In 2005 (September-December), I was Visiting Professor at the University of Waterloo, Ontario. Canada.
- Since 2004 I am a member of managing committee of the Italian Society of General Relativity and Gravitational Physics (SIGRAV).
- In 2002 (March-June), Visiting Professor at the University of Waterloo, Ontario. Canada.
- In 1999-2011 I was tenured researcher in Mathematical Physics at Department of Mathematics of the University of Torino.
- In 1998 I was researcher in Mathematical Physics at Department of Mathematics of the University of Torino.
- Nel 1998 (March-June) I was Visiting Professor at the University of Waterloo, Ontario. Canada.
- In 1993 I was researcher for CNR at Institute of Mathematical Physics *J.-L. Lagrange* of the University of Torino.

Research interests

Geometric methods for classical field theories

Realativistic theories, natural theories, gauge natural theories

Conservation laws

Black hole entropy

Spin structures and spinor theories

Extended theories of gravitation

Quantum gravity

Schools and conferences

- Scientific Colloquia at Scuola Superiore Meridionale - (Napoli, Italy) 21/01/2021,
- *Probing Gravitational Field. A fundamental approach.*
- SIVRAV 2018 – Santa Margherita di Pula (Cagliari, Italy), September 9-15,
- *Dynamic and Chronodynamic Observables in Palatini $f(R)$ -theories*
- Department of Mathematics – Torino (Italy), May 9, 2018
- *Noether symmetries and conservation laws in conformal gravity*
- Department of Physics – Torino (Italy), April 26, 2018
- *Hubble drift in Palatini $f(R)$ -cosmology*
- Warp18 – Torino (Italy), 18 aprile 16, 2018
- *GPS e sistemi di posizionamento nello spaziotempo*
- PAFT18 – Vietri (Salerno, Italy), March 28, 2018
- *Observability and tests in Palatini $f(R)$ -cosmology*
- Wilfrid Laurier University, Feb 28, 2017
- *Extended Theories of Gravitation*
- University of Waterloo, Jan 31, 2017, Applied Math Dept.
- *Ehlers-Pirani-Schild axiomatics for gravity and extended theories of gravitation*
- Meeting of QGSKY INFN Iniz.Spec., Napoli, 1-2 September, 2015,
- *Conformal Gravity as a Gauge theory.*
- 14 Marcel Grossmann, July 12-18, 2015
- *Extended Gravity in EPS Formalism*
- Variational principles and conservation laws in General Relativity, Torino, June 24-25, 2015,
- *Conformal Gravity as a Gauge theory.*
- Trieste, Riunione iniziativa specifica Na12, Ottobre 23-25, 2013
- *No-go theorem for polytropic stars in $f(R)$ -Palatini*
- XX SIGRAV Conference, Napoli October 22-26, 2012
- *Observational protocols and tests in extended theories of gravitation*

- XX SIGRAV Conference, Outreach day, Napoli October 24, 2012
 - *Il Tempo in gravità quantistica*
- The time Machine Factory, Torino October 15-19, 2012
 - *Extended Theories of Gravitation: Observation, Protocols and Experimental Tests*
- Waterloo, November 2011
 - *Possible implications of superluminal neutrinos for General Relativity and Special Relativity*
- XVIII Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Pisa 2010
 - *Extended theories of gravitation and Weyl geometries*
- Meeting of Na12 INFN Iniz.Spec., Torino, September, 2009
 - *New Cases of Universality Theorem for Gravitational Theories*
 - *Extended Loop Quantum Gravity*
 - *Further Extended Theories of Gravitation*
- XVII Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Cosenza 2008
 - *Global Barbero-Immirzi Connections*
- XVII Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Torino 2006
- Workshop on DYNAMICS AND THERMODYNAMICS OF BLACKHOLES AND NAKED SINGULARITIES II, Milano, May, 2007
 - *Geometric Entropy for Self-Gravitating Systems in Alternative Theories of Gravity*
- 42nd Karpacz Winter School of Theoretical Physics, Ladek (Poland), February 2006
 - *Covariant Formalism for Chern-Simons Theories*
- UMI Conference, Reggio Emilia, November, 2006
 - *MArs: Portale di Matematica e Arte*
- AIF Conference, Latina, October, 2006
 - *$E=mc^2$*
- INFN-Na12 meeting, Napoli, October, 2006
 - *Covariant Formulation of Barbero-Immirzi Connection*
- Dalhousie University, Halifax, Nova Scotia, Canada, November, 2005
 - *Gauge Theories vs. Differential Geometry*
- University of Waterloo, Ontario, Canada, November, 2005
 - *Covariant Energy Prescriptions: from Classical Mechanics to General Relativity*
- Perimeter Institute for Theoretical Physics, Waterloo, Ontario, Canada, November, 2005

- *Chern-Simons Theories*
- University of Waterloo, Ontario, Canada, November, 2005
 - *Is Intelligent Design a Scientific Discipline?*
- Università di Trento, Trento, April 2005
 - *Conservation laws and entropy in relativistic theories*
- INFN Firenze, April 2005
 - *Covariant Formalism for Chern-Simons Theories in Odd Dimension*
- XXIX Summer school in Mathematical Physics - Ravello, September 2004
- XXI Summer school in Mathematical Physics - Ravello, September 1996
- XX Summer school in Mathematical Physics - Ravello, September 1995
- GR17 Dublin, July 17-23, 2004
 - *Chern-Simons Theory*
- Riunione scientifica del Gruppo Nazionale di Fisica Matematica, 2004
- XVI Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Vietri (SA), September 2004
 - *Symmetries and Conservation Laws in Gauge Covariant Field Theories*
- Workshop on DYNAMICS AND THERMODYNAMICS OF BLACKHOLES AND NAKED SINGULARITIES, Milano, 2004
- XV Congresso Italiano di Relatività Generale e Fisica della Gravitazione, 2002
- Riunione scientifica del Gruppo Nazionale di Fisica Matematica, 2001
- 8th International Conference on Differential Geometry and its Applications Opava (Czech Republic), 2001
 - *Gauge Natural Field Theories and Applications to Conservation Laws*
- Petrovski Centenary International Conference, 2001
 - *Conserved Quantities and Entropy in General Relativity*
- XIV Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Genova, September 2000
 - *Noether Conserved Quantities and Entropy in General Relativity*
- INFN Firenze2000- *Spin Frames Formalism for Gravity and Spinors*
- X Russian Gravitational Conference (Russia), 1999
 - *The entropy and conserved quantities of Taub-Bolt solution via Noether Theorem*
- INFN Firenze1999- *The Entropy of Taub-Bolt Solution via Noether Theorem*
- XIII Congresso Italiano di Relatività Generale e Fisica della Gravitazione Monopoli (Bari), 1998
 - *The Entropy of Black Holes via Noether Theorem*
- Workshop on Gauge Theories of Gravitation, Jadwisin (Poland), 1997
 - *Deformations of spin structures and gravity*
- Trieste ICTP-SISSA1997

- *Deformations of spin structures and gravity*

- XII Congresso Italiano di Relatività Generale e Fisica della Gravitazione, Roma, 1995

- *Why Metrics? Is the metric the most fundamental description for gravity?*

- Congresso Internazionale di Relatività Generale (GR14), Firenze, 1994
- Riunione scientifica del Gruppo Nazionale di Fisica Matematica, Roma 1993

Research coordinator activities

- 2019-2020 Direttore *Master Universitario di II livello in Mathematical and Physical methods for Space Sciences*
- 2019 Responsabile progetto di ricerca locale
- 2018-2020 Presidente Consiglio di corso di studi integrato in Matematica, Dipartimento di Matematica, Università di Torino
- 2016-2018 Vicepresidente Consiglio di corso di studi integrato in Matematica, Dipartimento di Matematica, Università di Torino
- 2018 Scientific Committee of The Time Machine Factory, October 2018, Torino
- 2015-2020 Managing committee CANTATA Cost Action
- 2018 Scientific Committee of SIGRAV Conference, Cagliari
- 2016 Scientific Committee of SIGRAV Conference, Cefalù
- 2015 Workshop *Variational Principles and conservation laws in General Relativity*, Torino (Italy).
- 2015 Scientific Committee of *The Time Machine Factory*², October 2015, Torino
- 2015 Scientific Committee of SIGRAV Conference, Cefalù 2016
- 2014 Scientific Committee of *Navigare fra le stelle: il satellite GAIA, una nuova rivoluzione astrofisica?*, Nov 2014, Torino (Italy)
- 2014 Supervisor of the Train2Move project: FP7-people cofund Nr. 609402
- 2014 Scientific Committee of SIGRAV Conference, Alessandria 2014
- 2012 Scientific Committee of *The Time Machine Factory*, October 2012, Torino
- 2012 Scientific Committee of SIGRAV Conference, Napoli 2012
- 2010 Associated editor for International Journal of Geometric Methods in Modern Physics (IJGMMP)
- 2010 Responsabile progetto di ricerca locale

- 2010 Comitato scientifico del Congresso SIGRAV, Pisa 2010
- 2008 Comitato scientifico del Congresso SIGRAV, Cosenza 2008
- 2008 Comitato organizzatore del Congresso SIGRAV, Cosenza 2008
- 2006 Comitato scientifico e organizzatore del Congresso SIGRAV, Torino 2006
- Dal 2004 membro del consiglio direttivo della SIGRAV

Research collaborations

- Prof. R.G. McLenaghan (University of Waterloo - Ontario Canada)
- *Simmetrie, operatori di simmetria e separazione delle variabili per le equazioni di Dirac*
- *GPS relativistic systems*
- Prof. R. Mann (University of Waterloo - Ontario Canada)
Leggi di conservazione in teorie relativistiche e entropia per le singolarità nelle teorie della gravitazione
- Prof. A. Borowiec (University of Wroclaw - Poland)
Metodi geometrici, teorie gauge-naturali, teorie tipo Chern-Simons
- Prof. S. Capozziello (University of Napoli)
Teorie estese della gravitazione.
- Prof. L.Lusanna (INFN- Sez. Firenze)
Tensori energia impulso
- Prof. C.Rovelli (Marseille, France)
Loop quantum gravity e fondamenti geometrici

Teaching activities

2020-2021

Relativistic dynamics (Master - 3cfu)

Matematica (Scienze dei Materiali - 6 cfu)

Advanced Mathematics (Magistrale Scienze dei Materiali - 4cfu)

Modelli relativistici (Magistrale Matematica - 6cfu)

Analisi su Varietà (Magistrale Matematica - 3cfu)
Meccanica Analitica (Magistrale Matematica - 3cfu)
Metodi matematici della meccanica classica (Fisica - 3cfu)

2019-2020

Relativistic dynamics (Master - 3cfu)
Matematica (Scienze dei Materiali - 6 cfu)
Advanced Mathematics (Magistrale Scienze dei Materiali - 4cfu)
Modelli relativistici (Magistrale Matematica - 6cfu)
Analisi su Varietà (Magistrale Matematica - 3cfu)
Meccanica Analitica (Magistrale Matematica - 3cfu)
Metodi matematici della meccanica classica (Fisica - 3cfu)

2018-2019

Matematica (Scienze dei Materiali - 6 cfu)
Advanced Mathematics (Magistrale Scienze dei Materiali - 4cfu)
Modelli relativistici (Magistrale Matematica - 6cfu)
Analisi su Varietà (Magistrale Matematica - 3cfu)
Metodi matematici della meccanica classica (Fisica - 3cfu)

2017-2018

Istituzioni di matematiche e metodi statistici(Scienze Naturali - 4CFU)
Advanced Mathematics (Magistrale Scienze dei Materiali - 4cfu)
Modelli relativistici (Magistrale Matematica - 6cfu)
Analisi su Varietà (Magistrale Matematica - 3cfu)
Metodi matematici della meccanica classica (Fisica - 3cfu)

2016-2017

Calculus 2 (Mathematics - Ontario Canada)

2015-2016

Modelli Relativistici (8CFU)
Modelli Matematici della Fisica Classica (7CFU)
Metodi Matematici della Meccanica Classica (1CFU)
Advanced Mathematics (4 CFU)
Istituzioni di matematiche e metodi statistici(Scienze Naturali - 4CFU)
Analisi su Varietà (Magistrale Matematica - 4CFU)

2014-2015

Modelli Relativistici (8CFU)
Modelli Matematici della Fisica Classica(7CFU)
Metodi Matematici della Meccanica Classica (1CFU)
Advanced Mathematics (4 CFU)
Istituzioni di matematiche e metodi statistici(4CFU)
Analisi su Varietà (4CFU)

2013-2014

Modelli Relativistici (8CFU)
Modelli Matematici della Fisica Classica(7CFU)
Metodi Matematici della Meccanica Classica (1CFU)
Advanced Mathematics (4 CFU)
Istituzioni di matematiche e metodi statistici(4CFU)
Analisi su Varietà (4CFU)

2012-2013

Modelli Relativistici (8CFU)
Modelli Matematici della Fisica Classica(7CFU)
Metodi Matematici della Meccanica Classica (1CFU)
Advanced Mathematics (4 CFU)
Corso di Matematica e Biostatistica con Applicazioni Informatiche (4CFU)
Analisi su Varietà (4CFU)

2011-2012

Introduzione alla fisica matematica
Modelli Matematici della Fisica Classica
Metodi Matematici della Meccanica Classica
Introduction to LQG (PhD)
Math 115 - Linear algebra for engineers, (Waterloo, ON Canada)
Tutorato: Meccanica Razionale (Mat)
Tutorato: Metodi Matematici della Meccanica Classica (Fis)

2010-2011

Tutorato: Meccanica Razionale (Mat)
Tutorato: Metodi Matematici della Meccanica Classica (Fis)

2009-2010

Teorie relativistiche, (Mat)
Metodi Matematici della Meccanica Classica (Fis)

Metodi Geometrici in Fisica Matematica (Mat)

Metodi Matematici e Statistici: Lab (SciNat)

2008-2009

Fisica Matematica, (Mat)

Metodi Matematici della Meccanica Classica (Fis)

Analisi su varietà (Mat)

Istituzioni di Matematiche e metodi Statistici (SciNat)

2007-2008

Fisica Matematica, (Ph.D, Maths)

Metodi Geometrici in Meccanica Classica (Fis)

Metodi Geometrici in Fisica Matematica (Mat)

Modelli Matematici per la Fisica Classica (Fis)

Metodi Matematici e Statistici: Lab (SciNat)

2006-2007

Introduzione alla Loop Quantum Gravity, (Ph.D, Maths)

Metodi Geometrici in Meccanica Classica (Fis)

Metodi Geometrici in Fisica Matematica (Mat)

Modelli Matematici per la Fisica Classica (Fis)

Matematica e Statistica per le Scienze Naturali (SciNat)

2005-2006

Selected Topics in Theoretical Physics, (Ph.D. Physics- Waterloo)

Metodi Geometrici in Meccanica Classica (Fis)

Metodi Geometrici in Fisica Matematica (Mat)

Modelli Matematici per la Fisica Classica (Fis)

Matematica e Statistica per le Scienze Naturali (SciNat)

2004-2005

Modelli per la Fisica Matematica (Mat)

Fisica Matematica: Relatività generale (PhD Mat)

Metodi Geometrici in Fisica Matematica (Mat)

Metodi Geometrici in Meccanica Classica (Fis)

Modelli Matematici per la Fisica Classica (Fis)

Matematica e Statistica per le Scienze Naturali (SciNat)

2003-2004

Fisica Matematica: Relatività generale (PhD Mat)
Metodi Geometrici in Meccanica Classica (Fis)
Modelli Matematici per la Fisica Classica (Fis)
Matematica per le biotecnologie (Biotec)

2002-2003

Fisica Matematica: Relatività generale (PhD Mat)
Metodi Geometrici in Meccanica Classica (Fis)
Matematica per le biotecnologie (Biotec)

2001-2002

Fisica Matematica: Relatività generale (PhD Mat)
Metodi Geometrici in Fisica Matematica (Mat)
Metodi Geometrici in Meccanica Classica (Fis)

2000-2001

Metodi Geometrici in Fisica Matematica (Mat)
Metodi Geometrici in Meccanica Classica (Fis)
Modelli Matematici per la Fisica Classica (Fis)

1999-2000

Meccanica razionale con elem. di Mecc. Statistica (Fis)
Tutoraggio studenti del primo anno (Mat)

Thesis

Bachelor

R.Lia (2003) *Applicazione di Maple (new)TensorPackage alle soluzioni di monopolio*

I. Donato (2007) *Parentesi di Poisson in formalismo multisimplettico*

G.Ballesio (2007) *Teorema della rappresentazione per i gruppi di ologonia*

Sara Galasso (2006) *Aspetti geometrici dell'effetto Bohm-Aharonov*

Elio Grazio (2006) *Deviazione Geodetica di Linee di Universo*

S.Garruto (2008) *Segnatura della metrica e del tensore di Ricci nelle teorie affini*

M.Di Mauro (2009) *Struttura conforme e proiettiva dello spaziotempo*

Loris Preziosi (2009) *Geometria dello Spaziotempo da Raggi di Luce e Particelle*

V.Martino (2011) *Killing vectors in cosmological models*

F.Cattafi (2013) *Curve caratteristiche per PDE*

C.Viola (2013) *La geometria della caduta libera e la propagazione della luce:*

Relatività Speciale e il limite newtoniano

R.Conti (2014) *Symplectic methods in optics*
M.Mannari (2015) *Equivalenza dinamica tra modelli cosmologici*

Master

A.Mana (2009) *Polytropic stars and no-go theorem in extended theories of gravitation*

A.Carignano (2008) *Symmetry operators of Dirac equations on 2- dimensional manifolds of Lorentzian signature*

P.Olivieri (2009) *Alternative theories of gravitation and cosmological applications*

Matteo Schmid (2008) *Conserved Quantities in Natural and Gauge-Natural Theories*

D. Girolami (2009) *Simplicial Techniques in Quantum Gravity: Spin Networks and Spinfoams*

M.Fontana (2011) *Conservation Laws in Alternative Theories of Gravitation*

S.Garruto (2012) *La struttura del problema di Cauchy in Relatività Generale*

F.Maione (2013) *Curve di rotazione delle galassie in teorie estese della gravitazione*

A.Barana (2013) *FIELD EQUATIONS FROM CONSERVATION LAWS IN RELATIVISTIC THEORIES*

D.Bella (2014) *Introduction to Loop Quantum Cosmology*

G.Giordana (2014) *Rendez-vous e Docking in Meccanica Celeste*

M.Tuveri (2014) *Black Hole Thermodynamics and Emergent Gravity*

P.Pinto (2017) *Cosmology in $f(R)$ -Palatini theories of gravity*

N.Morandi (2017) *Loop Quantum Gravity: a simplicial approach*

A.Moro (2019) *Wave Maps and the Algebraic Approach to Classical Field Theory*

S.Sottile (2019) *Epidemic Models: a Switch Control for Networks*

F.Chiaffredo (2020) *A geometric framework for perturbation theory in field theories*

A.Chiappini (2020) *Gravitational deflection of light in the Schwarzschild -De Sitter spacetime*

E. Ricossa (2020) *Variational Principles, Conservation Laws and Stability in Classical Field Theories*

Old (four years) degrees

G.Allemandi (1998) *Entropia e Primo Principio della Termodinamica nelle Teorie di Campo Relativistiche*

E.Bibbona (2002) *Esiste una formulazione naturale della*

fluidodinamica relativistica?

A. Ferrantelli (2002) *Symmetries, higher order symmetries and supersymmetries*

P. Ansalone (2002) *A Geometric Approach to Path Integrals*

S. Mercadante (2004) *Formulazione Covariante delle Teorie di Chern-Simons*

G. Pacchiella (2004) *Entropia di un collasso*

Ph.D.

E. Bibbona (2007) *Parametrized Variational Problems and Applications to Field Theories with Constraints*

G. Pacchiella (2008) *Ostruzioni topologiche e classi caratteristiche nelle applicazioni in fisica matematica.*

S. Mercadante (2009) *From Dark Matter & Dark Energy to Dark Metric*

M.C.Campigotto (2013) *Light deflection in conformal gravity*

S. Garruto (2016) *Extended Theories of Gravitation and Cosmological Models*

Other interests

Computer algebra and abstract tensor calculus

Philosophy of science

Comunicazione della scienza

Creationism (Confutation of)

Sci-fi

Games

[Publications](#)

[Curriculum](#)

This article was updated on January 21, 2021

Lorenzo Fatibene

BY LORENZO FATIBENE PUBLISHED ON AUGUST 21, 2019

Publications

1. Paolo Salucci, *et.al.*
Einstein, Planck and Vera Rubin: relevant encounters between the Cosmological and the Quantum Worlds,
Front. Phys. **8**, 579, (2021).
doi: 10.3389/fphy.2020.603190;
<https://www.frontiersin.org/article/10.3389/fphy.2020.603190> ;
[arXiv:2011.09278](https://arxiv.org/abs/2011.09278) [gr-qc]
2. S.Capozziello, A.Chiappini, L.Fatibene and A. Orizzonte
The generally covariant meaning of space distances,
Eur. Phys. J. Plus **135**, 948 (2020).
<https://doi.org/10.1140/epjp/s13360-020-00968-7>;
[arXiv:2011.06297](https://arxiv.org/abs/2011.06297) [gr-qc]
3. A. Bonino, S. Camera, L. Fatibene, A. Orizzonte
Solar System Tests in Brans-Dicke and Palatini $f(R)$ -theories,
Eur. Phys. J. Plus **135**, 951 (2020).
<https://doi.org/10.1140/epjp/s13360-020-00982-9>;
[arXiv:2011.06303](https://arxiv.org/abs/2011.06303) [gr-qc]
4. S.Carloni, L.Fatibene, M.Ferraris, R.G.McLenaghan, P.Pinto,
Discrete Relativistic Positioning Systems,
General Relativity and Gravitation 52(12) (2020);
[arXiv:1805.04741](https://arxiv.org/abs/1805.04741) [gr-qc]
5. M. C. Campigotto, A. Diaferio, L. Fatibene,
Conformal gravity: light deflection revisited and the galactic rotation curve failure
Classical and Quantum Gravity 36(24) (2019),
[arXiv:1712.03969](https://arxiv.org/abs/1712.03969) [astro-ph.CO gr-qc]

6. L.Del Vecchio, L.Fatibene, S.Capozziello, M.Ferraris, P.Pinto, S.Camera,
Hubble drift in Palatini $f(R)$ -theories,
Eur. Phys. J. Plus 134(5) (2019) 1-10 doi;
arXiv:1810.10754 [gr-qc]
7. P. Pinto, L.Del Vecchio, L.Fatibene, M.Ferraris,
Extended Cosmology in Palatini $f(R)$ -theories,
JCAP 11 (2018);
arXiv:1807.00397 [gr-qc]
8. M. C. Campigotto, A. Diaferio, X.Hernandez and L. Fatibene,
Strong gravitatuonal lensing in $f(\chi) = \chi^{3/2}$ gravity
JCAP, 06 (2017) 057;
arXiv:1612.01535 [astro-ph.CO]
9. L. Fatibene, M. Ferraris, G. Magnano,
Constraining the Physical State by Symmetries,
Annals of Physics 378, (2017) 47-58;
arXiv:1605.03888 (online 11 January 2017)
10. Lorenzo Fatibene, Simon Garruto.
Extended Theories of Gravitation,
Int.J.Geom.Meth.Mod.Phys. 13(5) (2016) 1650070-;
arXiv:1601.04315
11. Lorenzo Fatibene, Simon Garruto,
Principal Symbol of Euler-Lagrange Operators,
Classical and Quantum Gravity, Volume 33, Number 14 (2016);
arXiv:1603.04732
12. Salvatore Capozziello, Mariafelicia F. De Laurentis, Lorenzo Fatibene,
Marco Ferraris and Simon Garruto,
Extended Cosmologies,
SIGMA 12 (2016), 006, 16
pages; <http://dx.doi.org/10.3842/SIGMA.2016.006;>
arXiv:1509.08008
13. M.Campigotto, L.Fatibene,
Generally Covariant vs. Gauge Structure for Conformal Field Theories
Annals Phys. 362 (2015) 521-528;
arXiv:1506.06071
14. L.Fatibene, S. Garruto,
The Cauchy problem in General Relativity: An algebraic characterization.,
Class.Quant.Grav. 32 (2015) 23, 235010;

arXiv:1507.00476

15. A. Mana, L.Fatibene, M.Ferraris
A further study on Palatini $f(R)$ -theories for polytropic stars
JCAP 1510 (2015) 040 (2015-10-16) DOI: 10.1088/1475-7516/2015/10/040;
arXiv:1505.06575
16. L.Fatibene, S.Garruto, M. Polistina,
Breaking the Conformal Gauge by Fixing Time Protocols,
Int. J. Geom. Methods Mod. Phys., 12, 1550044 (2015) [14 pages] (DOI: 10.1142/S0219887815500449);
arXiv:1410.1284 [gr-qc]
17. L. Fatibene, R.G. McLenaghan, G.Rastelli,
Symmetry operators and separation of variables for Dirac's equation on two-dimensional spin manifolds with external fields,
Int. J. Geom. Meth. Mod. Phys., 12(01) (2015) 1550012 (32p) (DOI: 10.1142/S02198878155001271550012);
arXiv:1407.4855 [math-ph]
18. L.Fatibene, S.Garruto,
Extended Gravity,
Int. J. Geom. Methods Mod. Phys., 11, 1460018 (2014);
arXiv:1403.7036 [gr-qc]
19. M.Campigotto, L. Fatibene,
The gauge natural structure of conformal theory of gravity,
Annals of Physics, Volume 354, 328 (2015);
arXiv:1404.0898 [gr-qc]
20. L. Fatibene, M. Ferraris, G. Magnano, M. Palese, M. Capone, S. Garruto, S. Mercadante, E. Winterroth,
Higgs-like Field from Extended Theory of Gravitation,
Int. J. Geom. Methods Mod. Phys. 11 (2014) 1460001
21. L. Fatibene, M.Francaviglia,
Mathematical Equivalence versus Physical Equivalence between Extended Theories of Gravitation,
Int. J. Geom. Methods Mod. Phys. 11(1), 1450008 (2014);
arXiv:1302.2938 [gr-qc]
22. L.Fatibene, M.Francaviglia,
Equivalence Principle, Higgs Boson and Cosmology,
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Editorial

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*DYNAMICS AND THERMODYNAMICS OF BLACKHOLES AND NAKED
SINGULARITIES II*

This article was updated on February 16, 2021

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