

Luca Martucci

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Via Marzolo, 8
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Education

Degree of Doctor of Philosophy in Physics
(Dottorato di Ricerca in Fisica, Astrofisica e Fisica Applicata)
Università degli Studi di Milano, Italy
Thesis Title: “D-brane physics from low energy effective actions”
Date of Graduation: 20 January 2004
Supervisor: Daniela Zanon

Degree of Laurea in Physics
Università degli Studi di Parma, Italy
Thesis Title: “Linearizzazione della formulazione hamiltoniana della tetrad gravity, nello spazio delle fasi ridotto”
Date of Graduation: 21 July 2000
Supervisors: Luca Lusanna and Massimo Pauri
Final Grade: 110/110 ‘cum laude’

Present Position

Permanent staff member at the Physics Department “Galileo Galilei” of the Università degli Studi di Padova since October 2012 (Associate Professor since July 2017).

Postdoctoral Experience

Postdoctoral position at the I.N.F.N. - Sezione di Roma “Tor Vergata”,
granted by the “ERC Superfields” (<http://superfields.web.cern.ch>)
October 2010 - September 2012

Postdoctoral position at the Arnold Sommerfeld Center for Theoretical Physics,
Ludwig Maximilians Universität München,
granted by the Cluster of Excellence “Origin and Structure of the Universe”
October 2007 - September 2010

Postdoctoral position at the Institute of Theoretical Physics,
Katholieke Universiteit Leuven, Belgium
granted by the F.W.O. - Vlaanderen and by the Federal Office for Scientific, Technical
and Cultural Affairs, project “Fundamental interactions: at the boundary of theory,
phenomenology and experiment”
October 2004 - September 2007

Contratto di collaborazione esterna at the Dipartimento di Fisica,
Università degli Studi di Milano
February 2004 - August 2004

Didactical Activities

Class on “General Relativity” for Ph.D. students (since 2020)

Class on “String Theory” for Ph.D. students (since 2016)

Class on “Fundamentals of Relativity” for the Bachelor course in Astronomy (since October 2014)

Class on “Mathematical Methods of Physics” for the Bachelor course in Physics, (since March 2015)

Class on “Classical Mechanics and Thermodynamics”, Facoltà di Ingegneria dell’Università degli Studi di Padova (March 2013 - February 2015)

Class for undergraduate and Ph.D students: “Introduction to String Theory”
Physics Department, Università degli Studi di Milano (May-April 2004)

Supervised Theses

Ph.D. supervisor of Stefano Lanza (2016-2019)

Bachelor thesis supervisor of Veronica Collazuol “Rottura spontanea della simmetria conforme e buchi neri diatonici” (2019)

Master thesis supervisor of Andrea Sangiovanni “Membrane-mediated vacuum decays, three-forms and the Weak Gravity Conjecture” (2018)

Master thesis supervisor of Enrico Andriolo “Aspects of String Perturbation Theory” (2018)

Bachelor thesis supervisor of Umberto Maria Tomasini “Estensioni centrali e anomalie in meccanica quantistica” (2018)

Master thesis supervisor of Davide Billo “Holographic effective field theories and the AdS4/CFT3 correspondence” (2017)

Bachelor thesis supervisor of Riccardo Ciccone “Teoria Esatta delle Perturbazioni” (2017)

Master thesis supervisor of Riccardo Antonelli “Holographic effective field theories: a case study” (2016)

Bachelor thesis supervisor of Tommaso Bertolini “Simmetrie e correnti elettromagnetiche nascoste” (2015)

Bachelor thesis supervisor of Paolo Spezzati “Teorie di ordine superiore, instabilità e lagrangiane degeneri” (2015)

Master thesis supervisor of Stefano Andriolo “Warping the effective field theory of string flux compactifications” (2014)

Master thesis co-supervisor of Paolo Milan “Wilsonian Renormalization Group and Holography” (2014)

Bachelor thesis supervisor of Enrico Favero “Aspetti della teoria di Born-Infeld” (2013)

Bachelor thesis supervisor of Matteo Rizzato “Meccanica quantistica supersimmetrica” (2013)

Day-to-day supervisor of Gianluca Inverso,
Ph.D. student at the Universit degli Studi di Roma “Tor Vergata”

Day-to-day supervisor of Johannes Held,
Ph.D. student of the International Max Planck Research School for Elementary Particle Physics
at the Max Planck Institute for Physics, München,

Supervision of master thesis in theoretical physics
Student name: Bram Wynants
Thesis Title: “Supersymmetric actions for multiple D-branes on D-brane backgrounds”
Institute of Theoretical Physics, K.U. Leuven, 2006

Supervision of undergraduate student project seminars
Institute of Theoretical Physics, K.U. Leuven
November 2004 - April 2005, November 2006 - April 2007

Grants

Principal Investigator BIRD 2017 project: Symmetries of the Fundamental Interactions and their Breaking

Research Interests

My research interests are focused on the study of several aspects of String Theory and its physical applications. More specifically, I have been working and I am going to work on the following topics:

- String theory in presence of fluxes and its application to particle physics and cosmology
- Supersymmetry breaking in string theory
- Gauge/string theory correspondence
- Non-perturbative effects in string theory
- Generalized complex geometry and string theory
- ...

Additional scientific activities

- Referee for various journals:
- Physical Review Letters
 - Physical Review D
 - Journal of High Energy Physics
 - Journal of Geometry and Physics
 - Journal of Physics A
 - Classical and Quantum Gravity
 - American Mathematical Society

- International Journal of Modern Physics A
- Fortschritte der Physik

Organizer of “Supergravity 2015”, 29-30 October 2015, Padova

Organizer of “Supergravity 2017”, 18-19 May 2017, Padova

Scientific Secretary of the “EPS Conference on High Energy Physics 2017”, 5-12 July 2017, Venezia

Member of the Organizing Committee of the “Avogadro Meeting on Strings, Supergravity and Gauge theories”, from 2009 to 2011.

Some Seminars

Anti-branes in string compactifications. Talk held at the Scuola Normale, Pisa, 18 October 2019

A three-form exploration of the landscape. Plenary talk at the conference “String Phenomenology 2019”, CERN, 24-28 June 2019

Effective field theory of 3d $N=2$ CFT's from holography. Plenary talk at the conference “Physics and Geometry of F-theory 2018”, IFT-UAM Madrid, Spain, 5 - 8 March 2018

Three-forms, supersymmetry and string compactifications. Plenary talk at the workshop “String Field Theory and String Phenomenology”, HRI, Allahabad, India, 5 - 15 February 2018

Warped effective theories and holography. Talk held at the Università di Torino, Torino, 30 May 2017

Warped effective theories and holography. Plenary talk at the conference “Physics and Geometry of F-theory 2017”, ICTP, Trieste, 27 February 2017

Holographic Effective Field Theories. Talk held at the GGI workshop “Supergravity: what next?”, Galileo Galilei Institute, Firenze, 6 September 2016

Holographic Effective Field Theories. Talk held at the Università di Roma “Tor Vergata”, Roma, 11 February 2016

Warping the Kähler potential of flux compactifications. Plenary talk at the conference “String Phenomenology 2015”, Madrid, 8-12 June 2015

Warping the Kähler potential of F-theory/IIB flux compactifications. Talk held at the Università degli Studi di Torino, Torino, 5 May 2015

Warping the Kähler potential of F-theory/IIB flux compactifications. Plenary talk at the conference “Physics and Geometry of F-theory 2015”, Monaco di Baviera, 23–26 febbraio 2015

Brane instantons in F-theory: the IIB perspective. Plenary talk at the conference “String Phenomenology 2014”, ICTP, Trieste, 7-11 July, 2014

Brane instantons in F-theory and the topological duality twist. Plenary talk at the conference “Geometry and Physics of F-theory”, Heidelberg, 24-27 February 2014

Brane instantons and fluxes in F-theory. Plenary talk at StringPheno 2013, Hamburg, Germany, 15-19 July 2013

Brane instantons and fluxes in F-theory. Talk held at ULB, Bruxelles, Belgium, 5 December 2012

Magnetized instantons in F-theory. Talk held at IFT-UAM, Madrid, Spain, 19 April 2012

Flux compactifications and SUSY-breaking. Talk held at the workshop “The supersymmetric, the extremal and the ugly - solutions in string theory”, Saclay, France, 15-17 November 2011

Magnetized instantons in F-theory. Talk held at the “Seventh Superfields Joint Seminar”, Rome, 20-21 October 2011

On non-perturbative effects in F-theory. Talk held at the “XVII European Workshop on String Theory 2011”, Padua, Italy, 5-9 September 2011

Non-perturbative effects and geometry. Talk held at the Department of Physics, Swansea University, Swansea, United Kingdom, 4 May 2011

D-brane non-perturbative effects and geometric deformations. Talk held at the conference “Problemi attuali della fisica teorica”, Vietri sul Mare (SA), Italia, 16 aprile 2011

Recent developments in flux compactifications. Talk held at the “VI Avogadro Meeting”, GGI, Firenze, Italy, 20 December 2010

Non-supersymmetric heterotic flux compactifications. Talk held at the Scuola Normale Superiore, Pisa, Italy, 2 March 2010

β -deformations and non-perturbative effects on 7-branes Yukawa couplings. Talk held at the Università degli Studi di Roma Tor Vergata, Roma, Italy, 11 December 2009

Moduli and effective theory of $N=1$ warped compactifications. Talk held at the 15th European Workshop on String Theory, Zürich, Switzerland, 7 - 11 September 2009

Moduli and effective theory of $N=1$ warped compactifications. Talk held at the ITP, University of Heidelberg, Germany, May 11, 2009

On moduli and effective theory of $N=1$ warped compactifications. Talk held at the XXI Workshop “Beyond the Standard Model”, Physikzentrum Bad Honnef, Germany, March 16 - 19, 2009

Flux vacua in String Theory, generalized calibrations and supersymmetry breaking. Talk held at the workshop “Supersymmetry in complex geometry”, Institute for the Physics and Mathematics of the Universe, Tokyo, Japan, 4-9 January 2009

Generalized geometry and flux compactifications. Invited overview lecture given at the “Workshop on Mathematical Challenges in String Phenomenology”, Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Austria, 6-15 October 2008

Generalized non-supersymmetric flux vacua. Talk held at the Dipartimento di Fisica, Università degli Studi di Milano, Italy, 10 June 2008

From ten to four and back again, generalizing the geometry. Talk held at CERN, Geneva, Switzerland, 11 December 2007

D-branes and fluxes in String Theory. Talk held at the Science Week of the Excellence Cluster “Origin and Structure of the Universe”, Garching, Germany, 3-7 December 2007

From ten to four and back again, generalizing the geometry. Talk held at Sissa, Trieste, Italy, 28 November 2007

D-branes and background fluxes. Talk held the Kick-Off-Meeting of the Excellence Cluster “Origin and Structure of the Universe”, Munich, Germany, 22 May 2007

D-branes on generalized complex flux vacua. Talk held at the “Workshop on Generalized Geometry and Flux Compactifications”, Hamburg, Germany, 19 February - 1 March 2007

Supersymmetric D-branes on flux backgrounds. Talk held at the Institute Henri Poincaré, Paris, France, 7 December 2006

Supersymmetric D-branes on flux backgrounds. Talk held at the RTN Workshop “Constituents, Fundamental Forces and Symmetries of the Universe”, Napoli, Italy, 9-13 October 2006

D-branes on $\mathcal{N} = 1$ backgrounds: generalized calibrations, superpotentials and D-terms. Talk held at the Strings 2006 Shanghai Workshop, USTC Institute for Advanced Studies, Shanghai, China, 12-14 June 2006

Supersymmetric D-branes on flux backgrounds. Talk held at the Departamento de Fisica de Particulas, Universidad de Santiago de Compostela, Spain, 11 May 2006

D-brane physics on supersymmetric flux vacua. Talk held at the Center for Theoretical Physics, University of Groningen, 27 April 2006

Supersymmetric D-brane physics with fluxes. Talk held at the Dipartimento di Fisica, Università degli Studi di Milano, Italy, 12 April 2006

D-branes on $\mathcal{N} = 1$ vacua: superpotentials and D-terms. Talk held at the Université Libre de Bruxelles, Belgium, 15 March 2006

Susy D-branes on $\mathcal{N} = 1$ backgrounds. Talk held at the Institute Henri Poincaré, Paris, France, 9 November 2005

List of publications

1. S. Lanza, F. Marchesano, L. Martucci and D. Sorokin, “How many fluxes fit in an EFT?,” JHEP **1910** (2019) 110 doi:10.1007/JHEP10(2019)110 [arXiv:1907.11256 [hep-th]].
2. I. Bandos, F. Farakos, S. Lanza, L. Martucci and D. Sorokin, “Variant 4D supergravities and membranes,” J. Phys. Conf. Ser. **1194** (2019) no.1, 012012.
3. I. Bandos, F. Farakos, S. Lanza, L. Martucci and D. Sorokin, “Higher Forms and Membranes in 4D Supergravities,” Fortsch. Phys. **67** (2019) no.8-9, 1910020 doi:10.1002/prop.201910020 [arXiv:1903.02841 [hep-th]].
4. A. Legramandi, L. Martucci and A. Tomasiello, “Timelike structures of ten-dimensional supersymmetry,” JHEP **1904** (2019) 109 doi:10.1007/JHEP04(2019)109 [arXiv:1810.08625 [hep-th]].
5. I. Bandos, F. Farakos, S. Lanza, L. Martucci and D. Sorokin, “Three-forms, dualities and membranes in four-dimensional supergravity,” JHEP **1807** (2018) 028 doi:10.1007/JHEP07(2018)028 [arXiv:1803.01405 [hep-th]].

6. F. Farakos, S. Lanza, L. Martucci and D. Sorokin, “Three-forms in Supergravity and Flux Compactifications,” *Eur. Phys. J. C* **77** (2017) no.9, 602 doi:10.1140/epjc/s10052-017-5185-y [arXiv:1706.09422 [hep-th]].
7. L. Martucci, “Warped Kähler potentials and fluxes,” *JHEP* **1701** (2017) 056 doi:10.1007/JHEP01(2017)056 [arXiv:1610.02403 [hep-th]].
8. I. Bandos, M. Heller, S. M. Kuzenko, L. Martucci and D. Sorokin, “The Goldstino brane, the constrained superfields and matter in $\mathcal{N} = 1$ supergravity,” *JHEP* **1611** (2016) 109 doi:10.1007/JHEP11(2016)109 [arXiv:1608.05908 [hep-th]].
9. L. Martucci and A. Zaffaroni, “Holographic Effective Field Theories,” *JHEP* **1606** (2016) 166 doi:10.1007/JHEP06(2016)166 [arXiv:1603.04470 [hep-th]].
10. I. Bandos, L. Martucci, D. Sorokin and M. Tonin, “Brane induced supersymmetry breaking and de Sitter supergravity,” *JHEP* **1602** (2016) 080 doi:10.1007/JHEP02(2016)080 [arXiv:1511.03024 [hep-th]].
11. L. Martucci and T. Weigand, “Hidden Selection Rules, M5-instantons and Fluxes in F-theory,” *JHEP* **1510** (2015) 131 doi:10.1007/JHEP10(2015)131 [arXiv:1507.06999 [hep-th]].
12. L. Martucci and T. Weigand, “Non-perturbative selection rules in F-theory,” *JHEP* **1509**, 198 (2015) doi:10.1007/JHEP09(2015)198 [arXiv:1506.06764 [hep-th]].
13. L. Martucci, “Warping the Kähler potential of F-theory/IIB flux compactifications,” *JHEP* **1503** (2015) 067 [arXiv:1411.2623 [hep-th]].
14. B. Bellazzini, L. Martucci and R. Torre, “Symmetries, Sum Rules and Constraints on Effective Field Theories,” *JHEP* **1409** (2014) 100 [arXiv:1405.2960 [hep-th]].
15. L. Martucci, “Topological duality twist and brane instantons in F-theory,” *JHEP* **1406** (2014) 180 [arXiv:1403.2530 [hep-th]].
16. S. Giusto, L. Martucci, M. Petrini and R. Russo, “6D microstate geometries from 10D structures,” *Nucl. Phys. B* **876** (2013) 509 [arXiv:1306.1745 [hep-th]].
17. M. Bianchi, G. Inverso and L. Martucci, “Brane instantons and fluxes in F-theory,” *JHEP* **1307** (2013) 037 [arXiv:1212.0024 [hep-th]].
18. L. Martucci, J. F. Morales and D. R. Pacifici, “Branes, U-folds and hyperelliptic fibrations,” *JHEP* **1301** (2013) 145 [arXiv:1207.6120 [hep-th]].
19. M. Bianchi, A. Collinucci and L. Martucci, “Freezing E3-brane instantons with fluxes,” *Fortsch. Phys.* **60** (2012) 914 [arXiv:1202.5045 [hep-th]].
20. L. Martucci, “Electrified branes,” *JHEP* **1202** (2012) 097 [arXiv:1110.0627 [hep-th]].
21. C. Germani, L. Martucci and P. Moyassari, “Introducing the Slotheon: a slow Galileon scalar field in curved space-time,” *Phys. Rev. D* **85** (2012) 103501 [arXiv:1108.1406 [hep-th]].
22. M. Bianchi, A. Collinucci and L. Martucci, “Magnetized E3-brane instantons in F-theory,” *JHEP* **1112** (2011) 045 [arXiv:1107.3732 [hep-th]].
23. A. Dymarsky e L. Martucci, “D-brane non-perturbative effects and geometric deformations,” *JHEP* **1104** (2011) 061 [arXiv:1012.4018 [hep-th]].
24. J. Held, D. Lüst, F. Marchesano and L. Martucci, “DWSB in heterotic flux compactifications,” *JHEP* **1006** (2010) 090 [arXiv:1004.0867 [hep-th]].
25. F. Marchesano and L. Martucci, “Non-perturbative effects on seven-brane Yukawa couplings,” *Phys. Rev. Lett.* **104** (2010) 231601 [arXiv:0910.5496 [hep-th]].
26. M. Haack, D. Lüst, L. Martucci and A. Tomasiello, “Domain walls from ten dimensions,” *JHEP* **0910** (2009) 089 [arXiv:0905.1582 [hep-th]].
27. L. Martucci, “On moduli and effective theory of $\mathcal{N}=1$ warped flux compactifications,” *JHEP* **0905** (2009) 027 [arXiv:0902.4031 [hep-th]].

28. D. Lüüst, F. Marchesano, L. Martucci and D. Tsimpis, “Generalized non-supersymmetric flux vacua,” *JHEP* **0811** (2008) 021 [arXiv:0807.4540 [hep-th]].
29. P. Koerber and L. Martucci, “Warped generalized geometry compactifications, effective theories and non-perturbative effects,” *Fortsch. Phys.* **56** (2008) 862 [arXiv:0803.3149 [hep-th]].
30. A. Butti, D. Forcella, L. Martucci, R. Minasian, M. Petrini and A. Zaffaroni, “On the geometry and the moduli space of beta-deformed quiver gauge theories,” *JHEP* **0807** (2008) 053 [arXiv:0712.1215 [hep-th]].
31. P. Koerber and L. Martucci, “D-branes on AdS flux compactifications,” *JHEP* **0801** (2008) 047 [arXiv:0710.5530 [hep-th]].
32. P. Koerber and L. Martucci, “From ten to four and back again: how to generalize the geometry,” *JHEP* **0708** (2007) 059 [arXiv:0707.1038 [hep-th]].
33. F. Bigazzi, A. L. Cotrone, L. Martucci and W. Troost, “Splitting of macroscopic fundamental strings in flat space and holographic hadron decays,” invited review, *Mod. Phys. Lett. A* **22** (2007) 1057 [arXiv:hep-th/0703284].
34. J. Evslin and L. Martucci, “D-brane networks in flux vacua, generalized cycles and calibrations,” *JHEP* **0707** (2007) 040 [arXiv:hep-th/0703129].
35. L. Martucci, “Supersymmetric D-branes on flux backgrounds,” *Fortsch. Phys.* **55** (2007) 771 [arXiv:hep-th/0701093].
36. F. Bigazzi, A. L. Cotrone, L. Martucci and W. Troost, “Meson decays from string splitting,” *Fortsch. Phys.* **55** (2007) 666 [arXiv:hep-th/0611253].
37. P. Koerber and L. Martucci, “Deformations of calibrated D-branes in flux generalized complex manifolds,” *JHEP* **0612** (2006) 062 [arXiv:hep-th/0610044].
38. A. L. Cotrone, L. Martucci, J. M. Pons and P. Talavera, “Heavy hadron spectra from spin chains and strings,” *JHEP* **0705** (2007) 027 [arXiv:hep-th/0604051].
39. L. Martucci, “D-branes on general $N = 1$ backgrounds: Superpotentials and D-terms,” *JHEP* **0606** (2006) 033 [arXiv:hep-th/0602129].
40. A. L. Cotrone, L. Martucci and W. Troost, “String splitting and strong coupling meson decay,” *Phys. Rev. Lett.* **96** (2006) 141601 [arXiv:hep-th/0511045].
41. L. Martucci and P. Smyth, “Supersymmetric D-Branes And Calibrations On General $N = 1$ Backgrounds,” *JHEP* **0511** (2005) 048 [arXiv:hep-th/0507099].
42. L. Martucci, J. Rosseel, D. Van den Bleeken and A. Van Proeyen, “Dirac actions for D-branes on backgrounds with fluxes,” *Class. Quant. Grav.* **22** (2005) 2745 [arXiv:hep-th/0504041].
43. L. Martucci, “Semiclassical Strings On Confining Backgrounds,” *Fortsch. Phys.* **53** (2005) 936 [arXiv:hep-th/0503242].
44. F. Bigazzi, A. L. Cotrone, L. Martucci and L. A. Pando Zayas, “Wilson Loop, Regge Trajectory And Hadron Masses In A Yang-Mills Theory From Semiclassical Strings,” *Phys. Rev. D* **71** (2005) 066002 [arXiv:hep-th/0409205].
45. D. Marolf, L. Martucci and P. J. Silva, “The explicit form of the effective action for F1 and D-branes,” *Class. Quant. Grav.* **21** (2004) S1385 [arXiv:hep-th/0404197].
46. F. Bigazzi, A. L. Cotrone and L. Martucci, “Semiclassical spinning strings and confining gauge theories,” *Nucl. Phys. B* **694** (2004) 3 [arXiv:hep-th/0403261].
47. L. Martucci and P. J. Silva, “Kinky D-Branes And Straight Strings Of Open String Tachyon Effective Theory,” *JHEP* **0308** (2003) 026 [arXiv:hep-th/0306295].
48. D. Marolf, L. Martucci and P. J. Silva, “Actions And Fermionic Symmetries For D-Branes In Bosonic Backgrounds,” *JHEP* **0307** (2003) 019 [arXiv:hep-th/0306066].
49. D. Marolf, L. Martucci and P. J. Silva, “Fermions, T-duality and effective actions for D-branes in bosonic backgrounds,” *JHEP* **0304** (2003) 051 [arXiv:hep-th/0303209].

50. L. Martucci and P. J. Silva, “On type II superstrings in bosonic backgrounds: the role of fermions and T-duality,” *JHEP* **0304** (2003) 004 [arXiv:hep-th/0303102].
51. J. Agresti, R. De Pietri, L. Lusanna and L. Martucci, “Hamiltonian Linearization Of The Rest-Frame Instant Form Of Tetrad Gravity In A Completely Fixed 3-Orthogonal Gauge: A Radiation Gauge For Background-Independent Gravitational Waves In A Post-Minkowskian Einstein Spacetime,” *Gen. Rel. Grav.* **36** (2004) 1055 [arXiv:gr-qc/0302084].
52. L. Martucci and P. J. Silva, “YM on the dielectric brane: A D0-brane tale,” *Nucl. Phys. B* **666** (2003) 230 [arXiv:hep-th/0212183].
53. G. Berrino, S. L. Cacciatori, A. Celi, L. Martucci and A. Vicini, “Noncommutative electrodynamics,” *Phys. Rev. D* **67** (2003) 065021 [arXiv:hep-th/0210171].
54. S. Cacciatori and L. Martucci, “Noncommutative AdS supergravity in three dimensions,” *Phys. Lett. B* **542** (2002) 268 [arXiv:hep-th/0204152].
55. S. Cacciatori, A. H. Chamseddine, D. Klemm, L. Martucci, W. A. Sabra and D. Zanon, “Noncommutative gravity in two dimensions,” *Class. Quant. Grav.* **19** (2002) 4029 [arXiv:hep-th/0203038].
56. S. Cacciatori, D. Klemm, L. Martucci and D. Zanon, “Noncommutative Einstein-AdS gravity in three dimensions,” *Phys. Lett. B* **536** (2002) 101 [arXiv:hep-th/0201103].
57. R. De Pietri, L. Lusanna, L. Martucci and S. Russo, “Dirac’s Observables for the Rest-Frame Instant Form of Tetrad Gravity in a Completely Fixed 3-Orthogonal Gauge,” *Gen. Rel. Grav.* **34** (2002) 877 [arXiv:gr-qc/0105084].