

Dipartimento di Scienze e Innovazione Tecnologica  
Università del Piemonte Orientale  
via Teresa Michel, 11 15121 Alessandria, Italy

## CURRICULUM VITAE

Pietro Antonio Grassi

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**Present Address** Dipartimento di Scienze e Innovazione Tecnologica  
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**Personal Data** Birth Date: October, 7<sup>th</sup>, 1967  
Birth Place: Genoa (GE), Italy  
Citizenship: Italian  
Fiscal Number: GRS PTR 67R07 D969G.

## Studies

Oct. 1981 – Jul. 1986	Scientific High School “L.B. Alberti” Valenza (AL) – Scientific Degree, High School 1986.
Oct. 1987 – Jul. 1993	Degree in Physics, Genoa University, Italy – mark 110/110 <i>summa cum laude</i> 21. July 1993
Nov. 1993 – Feb. 1997	“ <i>Dottorato di ricerca</i> ” (Ph.D.) in Physics, Milan University, Italy.

## Ph.D. and Master Thesis

Thesis Advisor: Prof. C. Becchi (University of Genoa).

Thesis Title: *Renormalization of Yang-Mills theory with the background field method.*

Ph. D. Advisor: Prof. L. Girardello (University of Milan).

External Ph. D. Advisors: Prof. C. Becchi and Prof. R. Ferrari (University of Milan).

Ph. D. Thesis: *Renormalization of the Standard Model in the 't Hooft-background gauge with symbolic automatic computations.*

## Ph.D. and post-doc positions

- Oct. 1987 – Jul. 1993, Master Student in Physics at University of Genoa, Italy.
- Nov. 1993 – Feb. 1997, Ph. D. Student in Physics at University of Milan, Italy.
- Sep. 1997 – Aug. 1999, Post-Doctoral fellow at Max-Planck-Institut für Physik, (Werner-Heisenberg-Institut), Munich, Germany.
- Oct. 1999 – Sep. 2001, Post-Doctoral fellow at New York University, Dip. of Physics, Theory Group, New York, NY, USA.
- Oct. 2001 – Nov. 2003, Post-Doctoral fellow at C.N. Yang Institute for Theoretical Physics, State University at Stony Brook, NY, USA.
- Nov. 2003 – Oct. 2005 Adjunct Professor at C.N. Yang Institute for Theoretical Physics State University at Stony Brook, USA.
- Jul. 2004 – Jul. 2005 contract for collaboration with Eastern Piedmont University Alessandria, Italy.
- Sep. 2004 – Sep. 2006 Scientific Associate at Th-Ph Unity CERN, Geneve, Switzerland.
- Jun. 2005 – May 2007 Senior Grant, Centro Studi E. Fermi at DISTA, University of Eastern Piedmont, Alessandria, Italy.
- Jun. 2006 (Permanent Job Position) FIS/02 Researcher (Assistant Professor) at DISIT, Eastern Piedmont University Alessandria, Italy
- Feb. 2013 – Apr. 2013 Scientific Associate at Th-Ph Unity CERN, Geneve, Switzerland.

- Jan. 2014 **ABILITATION for Associate Professor (Professore di Seconda Fascia) and for Full Professor (Professore di Prima Fascia)** on the basis of selection of National Scientific Habilitation. ASN c/o <http://abilitazione.miur.it/>

### Visiting Professorships

- Jun. 2001 – Jul. 2001, Short-Term Visitor CERN, Theory Division, Switzerland.
- Jun. 2002 – Jul. 2002, Short-Term Visitor CERN, Theory Division, Switzerland.
- Jul. 2002 – Aug. 2002, Short-Term Visitor, Ecole Normale Supérieure, Paris, France.
- Jul. 2003 – Aug. 2003, Short-Term Visitor CERN, Theory Division, Geneva, Switzerland.
- Oct. 2003 – Dec. 2003, Eastern Piedmont, Alessandria, Italy.
- Mar. 2004 – Apr. 2004, Short Term Visitor CERN, Theory Division, Geneva, Switzerland.
- Apr. 2004 – Mag 2004, Short Term Visitor IHES, Bures-sur-Yvette, France.
- May 2005, Short Term visiting professor at Tel-Aviv university, Israel.
- Jan. 2006, Short Term visiting professor at Tel-Aviv university, Israel.
- Jun. 2006, Short Term visiting Scientist, ESI, Wien, Austria.
- Dec. 2006, Short Term visiting Scientist, Ecole Normale Supérieure, Paris, France.
- Aug. 2007, Visiting Scientist, Newton Institute, Cambridge, UK.
- Jan. 2008, Short Term visiting Scientist, Institute for Theoretical Physics, Saclay, Paris, France.
- Jan. – Feb. 2009, Visitor at Kvali Institute for Theoretical Physics at Santa Barbara UC, USA.
- Nov. 2010, Short Term visiting Scientist, Institute for Theoretical Physics, Saclay, Paris, France.
- Nov. 2011, Short Term visiting Scientist, Institute for Theoretical Physics, Ecole Normale Supérieure, Paris, France.
- Feb. 2013 – Apr. 2013 Paid Associate Scientist at CERN, Th-Ph Division, Geneva, Switzerland.
- April. 2017 – Jun. 2017 Visiting Professor at Yukawa Institute, Kyoto University, JAPAN

### Schools

12 Jun. 1995 – 28 Jul. 1995,	Summer School in High Energy Physics and Cosmology, ICTP, Miramare (TS), Italy.
18 Mar. 2002 – 26 Mar. 2002,	Spring School in String Theory and Related Material, ICTP, Miramare (TS), Italy.
29 Aug. 2005 – 6 Sep. 2005,	International School of Subnuclear Physics, 43rd Course, Erice, TP, Italy.
21 Jan. 2008 – 25 Jan. 2008,	RTN Network School on Theoretical Physics, CERN, Switzerland.

## Conferences

- Jun. 1994, *Quark confinement and Hadronic Spectrum*, Como, Italy;
- Jul. 1996, *Gauge Theories, Applied Supersymmetry and Quantum Gravity*, London, UK;
- Jun. 1996, *Italian Theoretical Conference*, Cortona (AR), Italy;
- Mar. 1998 (*DPG*) *German Physics Society Conference*, Regensburg, Germany;
- Jun. 1998, *Italian Theoretical Workshop*, Cortona (AR), Italy;
- Jul. 1998, *Ringberg Symposium on Quantum Field Theory*, Ringberg Castle, Germany;
- Sep. 1998, *RADCOR, Conference of Radiative Corrections*, Barcellona, Spain;
- Oct. 1998, *Quantization, BRST and anomalies*, Wien, Austria;
- Apr. 2000, *Theoretical Developments in lattice gauge theory*, Ringberg, Germany;
- Sep. 2000, *RADCOR, Conference of Radiative Corrections*, Carmel, CA, USA;
- Dec. 2000, *Sirlin's Festival*, New York University, NY, USA;
- Dec. 2001, *Supergravity at 25*, Stony Brook, NY, USA;
- Mar. 2002, *School on Superstrings and related material*, ITCP, Trieste, It;
- Jul. 2002, *STRING2002*, Cambridge, UK;
- May 2003 *Wigner Symposium*, New York, USA;
- Jul./Aug. 2003 *Simons Workshop*, Stony Brook, USA;
- Jul. 2004 *String Workshop* CERN, Switzerland;
- Jul./Aug. 2004 *Simons Workshop*, Stony Brook, USA;
- Sep. 2004 *Italian Network for String and Quantum Field Theory*, Capri, Italy;
- Mar. 2005 *Problemi di Fisica Teorica*, Vietri sul Mare, SA, Italy;
- Jun. 2005 *The Legacy of Supergravity*, Villa Mondragone, Frascati, Italy;
- Jul. 2005 *Supersymmetry and Quantum Symmetries*, JNLR, BLTP, Dubna, Russia;
- Aug. 2005 *International School of Subnuclear Physics*, Erice (TP), Italy;
- Sep. 2005 *Inaugural Conference of the Galileo Galilei Institute*, Florence, Italy;
- Apr. 2006 *European Network Meeting*, Cambridge, UK;
- Jun. 2006 *Workshop on Gerbes and Non-commutative Geometry*, Vienna;
- Jul. 2006 *Pure Spinor String Theory Conference*, Sao Paulo, Brazil;
- Aug. 2006 *Young Research Symposium*, Rio de Janeiro, Brazil;
- Aug. 2006 *International Conference on Mathematical Physics*, Rio de Janeiro, Brazil;
- Oct. 2006 *RTN Meeting*, Naples, Italy;
- Dec. 2007, *Avogadro Meeting II*, Alessandria, Italy;
- Mag 2007, *M-theory and String theory*, Galileo Galilei Institute in Florence, Italy;
- Giu 2007, *Twistor, Pure Spinors and Superstring Workshop*, Munich, Germany;
- Aug./Sep. 2007, *Superstring at Strong Couplings and Integrability*,  
Newton Institute, Cambridge University, UK;
- Nov. 2007 *Girardello Fest* Milano Bicocca, Italy;
- Dec. 2007 *PRIN Meeting 2007*, Pisa, Scuola Normale Superiore, Italy;
- Dec. 2007 *III Avogadro Meeting on Theoretical Physics*, Alessandria, Italy;
- Jan. 2008 *Workshop on Theoretical Physics*, Saclay, Paris;
- Jun. 2008 *Wonders in Gauge and String Theories*, IHP and Saclay, Paris, France;
- Jun. 2008 *Fundamental Interactions*, INFN Meeting, Villa Mondragone, Roma, Italy.
- Aug. 2008 *String 2008*, CERN, Switzerland.
- Dec. 2008 *IV Avogadro Meeting on Theoretical Physics*, Trieste, Italy.
- Jan. 2009 *Kvali Institute for Theoretical Physics Superstrings and Supergravity*
- Dec. 2009 *IV Avogadro Meeting on Theoretical Physics*, Trieste, Italy.
- Jan. 2010 *Superstring on RR backgrounds* Stony Brook, (NY), USA
- May 2010 *Convegno Informale di Fisica Teorica*, Cortona, Italy
- Oct. 2010 *Italian Conference SIGRAV*, Scuola Normale di Pisa, Italy
- Dec. 2010 *LACES 2010*, Lectures of quantum field theory and Strings, GGI, Florence, Italy
- Dec. 2010 *V Avogadro Meeting on Theoretical Physics*, GGI, Florence, Italy
- Dec. 2011 *LACES 2011*, Lectures of quantum field theory and Strings, GGI, Florence, Italy
- Dec. 2011 *VI Avogadro Meeting on Theoretical Physics*, GGI, Florence, Italy.

Jan. 2012 *INFN Conference in Theoretical Physics*, Trieste, Italy.  
May 2012 *Convegno Informale di Fisica Teorica*, Cortona, Italy  
Sep. 2012 *INFN Meeting on Theoretical Physics*  
Dec. 2012, *Round Table on Theoretical Physics*  
Feb. 2013 *Black Holes and Theoretical Physics at CERN*.  
Jun. 2013 *Mathematical and Theoretical Physics Workshop*, Stony Brook, NY, USA  
Jan. 2014 *Supergravity at Stony Brook*, Stony Brook, NY, USA.  
Jul. 2014 *String Field Theory and Higher Spins*, SISSA, Trieste, Italy.  
Sep. 2014 *String Theory Universe*, Euroconference, Mainz, Germany  
Sep. 2014 *SIGRAV conference*, DISIT, Alessandria, Italy.  
Oct. 2014 *Superfields, Gauge Completion and Inflation*, A. Sommerfeld Int. Munich, Germany.  
Sep. 2015, *Physics on Riviera*, Santa Margherita Lig. Genova, Italy.  
Nov. 2015, *Round Table on Supergravity*, Dubna, Russia.

## Awards

Award: *Best Original work on Theoretical Physics*, Erice, Aug, 2005.

## Seminars

24 Apr. 2002, New York University, NY, USA, *Berkovits' formalism and covariant superstrings*;  
24 Dec. 2002, CERN Theory Division, Switzerland, *Covariant quantum superstrings*,  
26 Feb. 2003, New York University, NY, USA, *Covariant quantum superstrings with/without pure spinors*  
6 Mar. 2003, Harvard University, Theory Group, Cambridge, USA, *Covariant quantum superstrings with Ramond-Ramond fields*.  
17 Mar. 2003, Tor Vergata, Rome University, Italy, *Covariant quantum superstrings with Ramond-Ramond fields*.  
23 Mar. 2003, Institute Henri Poincaré, Paris, France, *Covariant quantum superstrings with Ramond-Ramond fields*.  
3 Apr. 2003, Bruxelles University, Belgium, *Covariant quantum superstrings with Ramond-Ramond fields*.  
23 Aug. 2003, Stony Brook, USA, *Covariant quantum superstrings with Ramond-Ramond fields*.  
2 Oct. 2003, Chapel Hill and Duke University, USA, *Covariant quantum superstrings with Ramond-Ramond fields*.  
Oct. 2003, ITP Ann Arbor, USA, *Covariant quantum superstrings*.  
Feb. 2004, NYU, NY, USA, *Deformed Superspace and String Theory*  
Mar. 2004, CERN, Theory Division, Switzerland, *Deformed Superspace and String Theory*  
Apr. 2004, LAPTH, Annecy, France, *Harmonic and Deformed Superspace from String Theory*  
Apr. 2004, IHES, Bures-sur-Yvette, France, *Recent Developements in Pure Spinor String Theory*  
Aug. 2004, Stony Brook, USA, *11d Superparticles and Supergravity*.  
Oct. 2004, (Institute Henri Poincaré) IHP, Paris, *Covariant Superstrings*.  
Oct. 2004, Saclay, France, *Supergeometry and Superstrings*.  
Feb. 2005, Utrecht, Holland, *Superstrings and Supergeometry*.  
Feb. 2005, Amsterdam, *M-theory and topological Strings*,  
Mar. 2005, Vietri sul Mare, *Superstrings and Supergeometry*,  
Apr. 2005, CERN Theory Unit, *Pure Spinor String Theory*,  
May 2005, Tel-Aviv University, *Pure Spinor String theory*,  
Aug. 2005, BLTP, Dubna, *Harmonic Superspace from string theory*,  
Sep. 2005, Erice, TR, *Non-commutative Structure of Spacetime*,  
Dec. 2006, Lueven, Belgium, *Progresses in Pure Spinor String theory*  
Jan. 2006, Univ. di Firenze, *Pure Spinor String theory*;  
Jan. 2006, SISSA, Trieste, *Supermanifolds and String Theory*;  
Feb. 2006, Weizmann Institute, Israel, *Progress in Pure Spinor String theory*;  
Feb. 2006, Tel-Aviv Univ., *Partition Functions in Pure Spinor String theory*;  
May 2006, Univ. Torino, *BRST for everybody*;  
Jun. 2006, Vienna, *Supermanifolds and Supergeometry*;  
Aug. 2006, Univ. of Sao Paolo (IFT), Brasile, *Supermembrane, FDA and Pure Spinors*;  
Aug. 2006, Univ. of Sao Paolo (IFT), Brasile, *Partition Functions for Pure Spinor String theories*;  
Sep. 2006, Univ. of Amsterdam, Theoretical Physics Institute, The Netherlands, *Partition Functions for Pure Spinor String theories*;  
Oct. 2006, DESY, Hamburg *Partition Functions for Pure Spinor String theories and An introduction on pure spinor string theory*;  
Oct. 2006, Queen Mary College, London, UK *Partition Functions for Pure Spinor String theories*;  
Oct. 2006, RTN Meeting, Naples *Partition Functions for Pure Spinor String theories and Non-critical Strings*;  
Feb. 2007, University of Tel-Aviv, Israel, *Partition Functions for Pure Spinor String theories and Non-critical Strings*;

Jul. 2007, University LMU, Munich, Germany, *Pure Spinor Non-critical Strings*;  
Aug. 2007, Newton Institute, Cambridge University, UK. *Pure Spinor Non-critical Strings*;  
Dec. 2007, Pisa, Scuola Normale Superiore, IT, *Pure Spinor Superstrings and AdS backgrounds*;  
Dec. 2007, Alessandria, University of Eastern Piedmont, Avogadro Meeting, 2007, *Pure Spinor Superstrings and AdS backgrounds*.  
Jan. 2008, Institute for Theoretical Physics, Saclay, Paris, France, *Pure Spinor Superstrings and AdS backgrounds*.  
Apr. 2008, SISSA, Trieste, Italy, *Higher Loop Computations in Pure Spinor Formalism*  
May 2008, Dipartimento di Fisica, Università di Padova, *From supergravity backgrounds to pure spinor sigma models*.  
May 2008, Institute for Theoretical Physics, Utrecht, The Netherlands, *From supergravity backgrounds to pure spinor sigma models*.  
May 2008, Department of Physics, Chalmers University, Goteborg, Sweden, *From supergravity backgrounds to pure spinor sigma models*.  
May 2008, Department of Physics, Chalmers University, Goteborg, Sweden, *Partition Functions and Lower dimensional Pure spinors*.  
May 2008, NBI, Copenhagen, Danmark, *From supergravity backgrounds to pure spinor sigma models*.  
May 2008, Institute for Theoretical Physics, Amsterdam University, *From supergravity backgrounds to pure spinor sigma models*.  
Jun. 2008, Institute Henri Poincaré Paris, France, *From supergravity backgrounds to pure spinor sigma models*.  
Jun. 2008, INFN Meeting Villa Mondragone *From supergravity backgrounds to pure spinor sigma models*.  
Jan. 2009, Kvali Institute for Theoretical Physics, Santa Barbara CA, USA *Non-critical Pure Spinor Superstrings*.  
Feb. 2009, New York University, USA *Non-critical Pure Spinor Superstrings*.  
Feb. 2009, SUNY at Stony Brook, USA *Non-critical Pure Spinor Superstrings*.  
Apr. 2009, University of Parma, Italy *Lectures on Pure Spinor Superstrings*  
Nov. 2009, ETH, Zurich, Switzerland. *Lectures on Pure Spinor Superstrings*  
Jan. 2010, Stony Brook, *Lectures on Pure Spinor Superstrings*  
Oct. 2010, Pisa, *Superstring Corrections to Supergravity*  
Jan. 2012, Trieste, *Fermionic Corrections to Supergravity Solutions*  
Jan. 2014, Stony Brook, USA *Fermionic Corrections to Supergravity Solutions*  
Jul. 2014, SISSA, Trieste, *Fermionic Corrections to Supergravity Solutions*  
Oct. 2014, Munich, *Fermionic Corrections to Supergravity Solutions*  
Sep. 2015, S. Margherita Ligure, Genova, Italy *Integral Forms and Some Applications*  
Nov. 2015, Genova, Italy *Integral Forms and Some Applications*  
Nov. 2015, Pisa, Italy *Integral Forms and Some Applications*  
Nov. 2015, Dubna, Russia *Integral Forms and Some Applications*

## Teaching Activity

- Monographic Series of Lectures

- University of Milan, Lectures on Algebraic Renormalization of Ph. D. students. Student Advised for Ph.D.: A. Quadri.
- New York University; Lectures on String Theory in collaboration with M. Porrati. Student Advised: G. Policastro (Scuola Normale di Pisa).
- C.N.Yang Institute for Theoretical Physics: Lectures on String Theory and Superparticles. Student Advised: A. Iglesias, L. Anguelova (Stony Brook Univ.) e L. Tamassia (University of Pavia).
- C.N. Yang Institute: Lectures for Ph. D. students 1) Renormalization of Standard Model and Background Field Method 2) Covariant Quantization of 10d superstrings.
- University of Turin (Italy), Theoretical Physics Dep. Lectures for Ph. D. students: Covariant Quantization of 10d superstrings.
- Scuola Normale di PISA, Lectures on String Theory and Supermembranes in collaboration with M. Porrati.
- Lectures at Galileo Galilei Institute for Theoretical Physics (I am in the organiser board of the School):  
2008: Advanced Quantum Field Theory, 2009: Compactifications and Calabi-Yau Spaces, 2010: Conformal Field Theory, 2011: Background Field Method and Sigma Models, 2012: Conformal Field Theory, 2014: Conformal Field Theory and Applications. 2015: Covariant Quantization of Strings.
- Univ. of Turin, Lectures on *Pure Spinor String theory*.

- Teaching Courses at University of Eastern Piedmont in Alessandria

- Lectures on Mathematical Methods for Physics sec. A (40h) 2008/2009 - 2009/2010
- Lectures on Mathematical Methods for Physics sec. B (48h) 2008/2009 - 2009/2010
- Lectures on Mathematical Methods for Physics (Course on Mathematics and Applications) (48h) 2010/2011 - 2011/2012
- Lectures on General Relativity (48h), 2007/2008 - 2008/2009 - 2009/2010 -2010/2011
- Lectures on Gauge Theories (48), 2008/2009
- Lectures on Geometry and Linear Algebra (24h), 2008/2009 - 2009/2010
- Lectures on Physics II for Chemistry (48h), 2013/2014 - 2014/2015
- Lectures on Mathematical Methods for Physics of Complex Systems (48h), 2008/2009 - 2009/2010 - 2010/2011 -2011/2012 -2012/2013 -2013/2014 - 2014/2015

- Teaching Courses at University of Turin, Complex Systems Courses

- Lectures on Mathematical Methods in Theoretical Physics (48h), 2010/2011 - 2011/2012 - 2012/2013 - 2013/2014 - 2014/2015

- Students (Undergraduate, Graduate and Ph.D.)

- V. Tamburello, (Undergraduate Thesis)
- A. Mezzalana, (Graduate Thesis and Ph. D.)
- G. Balbi, (Graduate Thesis)
- D. Bonzo, (Undergraduate Thesis)
- I. Guaschino, (Undergraduate Thesis)
- L. Gentile, (Graduate Thesis and Ph.D.)
- V. Formichella, (Undergraduate Thesis)
- D. Ferraro (Undergraduate Thesis)



## Research Activity

My research concerns String Theory and Quantum Field Theory.

## Publications

- Metric: 2500 citations on HEP-SPIRES, 2900 citations on GOOGLE SCHOLAR, h-index (28 su HEP-SPIRES, 30 su GOOGLE SCHOLAR), 2200 citations on SCOPUS.
- Collaborators: 55 International Coauthors.
- All publications are on Scientific International Journals of Class A. Those under review are given with the hep-th number as preprint at [www.arXiv.org](http://www.arXiv.org).
- Journal Referee: Nucl. Physics B, Phys. Rev. D, JHEP, Comm. Math. Phys., EJPC, JMPA.
- <http://inspirehep.net/search?ln=it&ln=it&p=a+grassi>

1. **“Minimal  $D = 7$  Supergravity and the supersymmetry of Arnold-Beltrami Flux branes”**  
P. Fre', P. A. Grassi, L. Ravera and M. Trigiante.  
arXiv:1511.06245 [hep-th]
2. **“The Hodge Operator Revisited”**  
L. Castellani, R. Catenacci and P. A. Grassi.  
arXiv:1511.05105 [hep-th]
3. **“Hyperinstantons, the Beltrami Equation, and Triholomorphic Maps”**  
P. Fr, P. A. Grassi and A. S. Sorin.  
arXiv:1509.09056 [hep-th]
4. **“Hodge Dualities on Supermanifolds”**  
L. Castellani, R. Catenacci and P. A. Grassi.  
arXiv:1507.01421 [hep-th]  
10.1016/j.nuclphysb.2015.08.002  
Nucl. Phys. B **899**, 570 (2015)
5. **“The Geometry of Supermanifolds and New Supersymmetric Actions”**  
L. Castellani, R. Catenacci and P. A. Grassi.  
arXiv:1503.07886 [hep-th]  
10.1016/j.nuclphysb.2015.07.028  
Nucl. Phys. B **899**, 112 (2015)
6. **“Balanced superprojective varieties”**  
R. Catenacci, M. Debernardi, P. A. Grassi and D. Matessi.  
arXiv:0707.4246  
10.1016/j.geomphys.2009.07.002  
J. Geom. Phys. **59**, no. 10, 1363 (2009)
7. **“Supergravity Actions with Integral Forms”**  
L. Castellani, R. Catenacci and P. A. Grassi.  
arXiv:1409.0192 [hep-th]  
10.1016/j.nuclphysb.2014.10.023  
Nucl. Phys. B **889**, 419 (2014)

8. **“No Fermionic Wigs for BPS Attractors in 5 Dimensions”**  
L. G. C. Gentile, P. A. Grassi, A. Marrani, A. Mezzalira and W. A. Sabra.  
arXiv:1403.5097 [hep-th]  
10.1016/j.physletb.2014.06.026  
Phys. Lett. B **735**, 231 (2014)
9. **“Fermions, Wigs, and Attractors”**  
L. G. C. Gentile, P. A. Grassi, A. Marrani and A. Mezzalira.  
arXiv:1309.0821 [hep-th]  
10.1016/j.physletb.2014.03.046  
Phys. Lett. B **732**, 263 (2014)
10. **“A Note on the Field-Theoretical Description of Superfluids”**  
L. Andrianopoli, R. D’Auria, P. A. Grassi and M. Trigiante.  
arXiv:1304.6915 [hep-th]  
10.1016/j.physletb.2014.01.013  
Phys. Lett. B **729**, 172 (2014)
11. **“Entropy Current Formalism for Supersymmetric Theories”**  
L. Andrianopoli, R. D’Auria, P. A. Grassi and M. Trigiante.  
arXiv:1304.2206 [hep-th]  
10.1016/j.nuclphysb.2015.01.001  
Nucl. Phys. B **892**, 105 (2015)
12. **“Fermionic Corrections to Fluid Dynamics from BTZ Black Hole”**  
L. G. C. Gentile, P. A. Grassi and A. Mezzalira.  
arXiv:1302.5060 [hep-th]  
10.1007/JHEP11(2015)153  
JHEP **1511**, 153 (2015)
13. **“Fermionic Wigs for BTZ Black Holes”**  
L. G. C. Gentile, P. A. Grassi and A. Mezzalira.  
arXiv:1209.4100 [hep-th]  
10.1016/j.nuclphysb.2013.02.009  
Nucl. Phys. B **871**, 393 (2013)
14. **“Fermionic Wigs for AdS-Schwarzschild Black Holes”**  
L. G. C. Gentile, P. A. Grassi and A. Mezzalira.  
arXiv:1207.0686 [hep-th]  
10.1007/JHEP10(2013)065  
JHEP **1310**, 065 (2013)
15. **“BCJ and KK Relations from BRST Symmetry and Supergravity Amplitudes”**  
P. A. Grassi, A. Mezzalira and L. Sommovigo.  
arXiv:1111.0544 [hep-th]
16. **“On Projections to the Pure Spinor Space”**  
P. A. Grassi and S. Guttenberg.  
arXiv:1109.2848 [hep-th]  
10.1007/JHEP12(2011)089  
JHEP **1112**, 089 (2011)
17. **“On Supergravity Amplitudes from Pure Spinor Strings”**  
P. A. Grassi and L. Sommovigo.  
arXiv:1107.3923 [hep-th]
18. **“Supersymmetric Fluid Dynamics”**  
P. A. Grassi, A. Mezzalira and L. Sommovigo.

- arXiv:1107.2780 [hep-th]  
10.1103/PhysRevD.85.125009  
Phys. Rev. D **85**, 125009 (2012)
19. **“Fluid Super-Dynamics from Black Hole Superpartners”**  
L. G. C. Gentile, P. A. Grassi and A. Mezzalira.  
arXiv:1105.4706 [hep-th]  
10.1016/j.physletb.2011.07.048  
Phys. Lett. B **703**, 81 (2011)
  20. **“Renormalization of the standard model in the ’t Hooft-background Gauge by means of automatic symbolic computation”**  
P. A. Grassi.
  21. **“Aspects of Quantum Fermionic T-duality”**  
P. A. Grassi and A. Mezzalira.  
arXiv:1101.5969 [hep-th]  
10.1007/JHEP05(2011)019  
JHEP **1105**, 019 (2011)
  22. **“Pure Spinor Integration from the Collating Formula”**  
P. A. Grassi and L. Sommovigo.  
arXiv:1009.3874 [hep-th]  
10.1016/j.nuclphysb.2011.04.001  
Nucl. Phys. B **849**, 675 (2011)
  23. **“Cech and de Rham Cohomology of Integral Forms”**  
R. Catenacci, M. Debernardi, P. A. Grassi and D. Matessi.  
arXiv:1003.2506 [math-ph]  
10.1016/j.geomphys.2011.12.011  
J. Geom. Phys. **62**, 890 (2012)
  24. **“Quantum Computing with Superqubits”**  
L. Castellani, P. A. Grassi and L. Sommovigo.  
arXiv:1001.3753 [hep-th]
  25. **“Theory of Superdualities and the Orthosymplectic Supergroup”**  
P. Fre, P. A. Grassi, L. Sommovigo and M. Trigiante.  
arXiv:0906.2510 [hep-th]  
10.1016/j.nuclphysb.2009.09.020  
Nucl. Phys. B **825**, 177 (2010)
  26. **“Triality Invariance in the N=2 Superstring”**  
L. Castellani, P. A. Grassi and L. Sommovigo.  
arXiv:0904.2512 [hep-th]  
10.1016/j.physletb.2009.06.032  
Phys. Lett. B **678**, 308 (2009)
  27. **“Simplifying superstring and D-brane actions in  $AdS_4 \times CP^3$  superbackground”**  
P. A. Grassi, D. Sorokin and L. Wulff.  
arXiv:0903.5407 [hep-th]  
10.1088/1126-6708/2009/08/060  
JHEP **0908**, 060 (2009)
  28. **“Higher-loop amplitudes in the non-minimal pure spinor formalism”**  
P. A. Grassi and P. Vanhove.  
arXiv:0903.3903 [hep-th]  
10.1088/1126-6708/2009/05/089  
JHEP **0905**, 089 (2009)

29. **“Exceptional N=6 and N=2 AdS(4) Supergravity, and Zero-Center Modules”**  
L. Andrianopoli, R. D’Auria, S. Ferrara, P. A. Grassi and M. Trigiante.  
arXiv:0810.1214 [hep-th]  
10.1088/1126-6708/2009/04/074  
JHEP **0904**, 074 (2009)
30. **“Superstrings on AdS(4) x CP\*\*3 from Supergravity”**  
R. D’Auria, P. Fre, P. A. Grassi and M. Trigiante.  
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