Curriculum *vitae*
Paola Salvini

Informazioni Personali

- nata a Firenze il 30/12/1961
- risiede in Via Di Vittorio 4, Travaco' Siccomario (PV)
  Tel.0039 0382 559923 , Cell.00393337111776 , e-mail Paola.Salvini@pv.infn.it
- Nazionalita': italiana

Studi

- Laureata in fisica il 9/12/1985 presso l'Universita' degli Studi di Pavia, con la votazione di 110/110 , nell'indirizzo nucleare applicativo.
- Dall'anno 1989 al 1991 ha frequentato i corsi del Dottorato di Ricerca in Fisica dell'Universita' di Pavia, conseguendo il titolo di Dottore di Ricerca nel corso del 1992 con una tesi rivolta all'analisi comparata dei dati degli esperimenti TOFRADUPP ed OBELIX.

Esperienze lavorative

- Durante l'Anno Scolastico 1986/87 ha tenuto il corso di "Informatica Generale" (in qualita' di supplente temporanea dal 15/10 al termine dell'anno scolastico) presso l'I.T.I.S. di Pavia, per la specializzazione di Perito Informatico.
- Durante parte dell'Anno Scolastico 1987/88 ha tenuto il corso di "Fisica" (in qualita' di supplente temporanea) presso l'I.P.S.I.A. di Pavia.
- Durante l'anno 1988 ha usufruito di una borsa di studio INFN per la prosecuzione della sua attivita' di ricerca nell'ambito dell'esperimento Obelix.
- Nel Febbraio 1992 la Dott.ssa P.Salvini e' stata assunta come ricercatore di fascia iniziale presso la Sezione di Pavia dell'Istituto Nazionale di Fisica Nucleare.
- Dall'Anno Accademico 2005-2006 ad oggi tiene il corso di "Radiation Physics" per il Master in "Nuclear and Radiation Tecnologies" dello Istituto di Studi Superiori (IUSS) di Pavia.

- Dall'Anno Accademico 2013-2014 ad oggi tiene il corso di "Radioattivit I" per la laurea specialistica in Fisica presso l'Universita' degli Studi di Pavia

Incarichi Istituzionali

- correlatore di tre Tesi di Laurea in Fisica presso l'Universita' degli Studi di Pavia
- tutore/supervisore di due Tesi di Dottorato presso l'Universita' degli Studi di Pavia
- Responsabile Locale dal 2011 dell'esperimento ARGO-YBJ per al Sezione INFN di Pavia.
- Responsabile Locale dal 2016 dell'esperimento CMS per al Sezione INFN di Pavia.

Sunto della attivita' scientifica

L'attivita' scientifica della Dott.P.Salvini , a carattere sperimentale, si e' sviluppata lungo le seguenti linee:

1) interazioni di antinucleoni di bassa energia con i nuclei
(esperimento TOFRADUPP)
2) interazione antinucleone-nucleone e antinucleone-nucleo e spettroscopia dei mesoni leggeri
(esperimento OBELIX)
3) studio dei raggi cosmici e astronomia gamma
(esperimento ARGO-YBJ)
4) interazione antiprotone-protone ad alte energie (LHC)
(esperimento CMS)

La Dott.ssa P.Salvini ha ad oggi 153 lavori citati nella banca dati ISI- Web of Knowledge pubblicati su riviste con referee anonimo, e' stata correlatore di tre tesi di laurea, e tutore/supervisore di due tesi di dottorato di ricerca in fisica.
Ha coordinato gruppi di analisi di dati sperimentali e di sviluppo di strumenti software per l'event display per l'esperimento OBELIX e per la ricostruzione ed

il controllo dei dati acquisiti per l'esperimento Argo-YBJ.
E' stata Responsabile Locale per l'esperimento ARGO-YBJ dal 2011 al 2014 per la Sezione INFN di Pavia e dl 2016 per l'esperimento CMS. Attualmente lavora nell'ambito dell'esperimento CMS sulla analisi dei dati di background e sul test dei rivelatori per il muon detection system di CMS (in particolare per le Resistive Plate Chambers ivi utilizzate).

PAVIA, 27/4/2017

Guido Montagna – Curriculum Vitae

Dati personali

Nome e cognome: Guido Montagna
Luogo e data di nascita: Voghera (PV), 22 gennaio 1964
Nazionalità: Italiana
Residenza: Via Emilia 230, 27058 Voghera
Indirizzo e-mail: guido.montagna@unipv.it / guido.montagna@pv.infn.it

Affiliazione

Dipartimento di Fisica, Università degli Studi di Pavia & INFN, Sezione di Pavia
Via A. Bassi 6
27100 Pavia

Posizione attuale

Professore ordinario di Fisica teorica, modelli e metodi matematici (da 1/5/2017)
Settore concorsuale: 02/A2 – *Fisica teorica delle interazioni fondamentali.* S.S.D. – FIS/02

Associato con incarico di ricerca all'INFN, Sezione di Pavia (da Luglio 1995)

Interessi di ricerca

Teoria delle interazioni fondamentali, fenomenologia delle particelle elementari, fisica dei collider. Fisica computazionale. Meccanica statistica, fisica dei sistemi complessi, econofisica.

Insegnamenti & attività didattica

Laurea triennale in Fisica: *Introduzione alla Fisica Moderna*
Laurea magistrale in Scienze Fisiche: *Teoria delle Interazioni Fondamentali / Econofisica*
Dottorato di ricerca in Fisica: collaborazione al corso *Electroweak and QCD Field Theories*

Tutore di circa 10 tesi di dottorato. Relatore di più di 20 tesi di laurea magistrale e circa 20 tesi di laurea triennale. Supervisore di assegnisti di ricerca post–doc.

Carriera & Formazione

Università degli Studi di Pavia
Professore associato di Fisica teorica, modelli e metodi matematici – S.S.D. FIS/02 — Luglio 2005 – Aprile 2017

Ricercatore di Fisica Nucleare e Subnucleare – S.S.D. FIS/04 — Luglio 1995 – Giugno 2005

Istituto Nazionale di Fisica Nucleare (INFN), Sezione di Pavia (concorso nazionale)
Borsa post–doc in Fisica Teorica — Aprile 1994 – Giugno 1995

Università degli Studi di Pavia
Dottorato di Ricerca in Fisica — Novembre 1990 – Ottobre 1993

INFN, Sezione di Pavia (concorso nazionale)
Borsa neo–laureati in Fisica Teorica Nucleare e Subnucleare — Gennaio 1990 – Ottobre 1990

Università degli Studi di Pavia
Laurea in Fisica (votazione: 110/110 e lode). — Novembre 1983 – Luglio 1989

Responsabilità & Incarichi di servizio

Coordinatore locale dell'Iniziativa Specifica INFN PR21 – Teoria di campo delle interazioni fondamentali. 1999 – 2005

Rappresentante del personale ricercatore ed associato della Sezione INFN di Pavia. 2001 – 2004

Cofondatore, con V.G. Goggi e O. Nicrosini, del Master Internazionale di II livello in *Methods for Management of Complex Systems*, Istituto Universitario di Studi Superiori (IUSS), Pavia. 2004 – 2008

Membro del comitato editoriale della collana di libri di testo universitari UNITEXT for Physics, Springer. dal 2005

Membro del collegio docenti del Dottorato di Ricerca in Fisica, Università degli Studi di Pavia. dal 2014

Membro della giunta del Dipartimento di Fisica. da Novembre 2016

Finanziamenti alla ricerca

Iniziativa specifica della Commissione IV dell'INFN "QFT@Colliders" (responsabile nazionale: F. Piccinini). *Partecipante.* da Gennaio 2014 ad oggi

Progetto PRIN 2010YJ2NYW "Symmetries, masses and mysteries: electroweak symmetry breaking, flavor mixing and CP violation, and dark matter in the LHC era" (responsabile nazionale: G. Martinelli). **Responsabile unità di Pavia.**

Progetto finanziato. Febbraio 2013 – Febbraio 2016

Network europeo PITN–GA–2010–264564 "LHCPhenoNet, Advanced Particle Phenomenology in the LHC Era", 7° programma quadro della Commissione Europea (responsabile nazionale: V. del Duca). *Partecipante.*

Progetto finanziato. Gennaio 2011 – Dicembre 2015

Progetto INTAS 05–1000008–8328 "Higher–order effects in e^+e^- annihilation and muon anomalous magnetic moment" (responsabile nazionale: L. Trentadue). *Partecipante.*

Progetto finanziato. Febbario 2007 – Luglio 2009

ORGANIZZAZIONE DI CONFERENZE & WORKSHOP

Co–organizzatore (con D. de Florian, S. Moch e F. Piccinini) del workshop "Prospects and precision at the LHC at 14 TeV", Galileo Galilei Institute for Theoretical Physics, Firenze. 1/9/2014 – 24/10/2014

Membro del comitato organizzatore della conferenza "High Precision for Hard Processes (HP2)", Firenze, 3–5 Settembre, 2014.

Co–organizzatore del "First joint experimental and theoretical meeting on the W mass measurement at the LHC", Firenze, 20–21 Ottobre, 2014.

Membro dell'International Advisory Committee del Symposium Internazionale "Lepton and Hadron Physics at Meson Factories", Messina, 13–15 Ottobre, 2013.

Membro del comitato scientifico del workshop INFN "Monte Carlo's, physics and simulations at the LHC", Laboratori Nazionali di Frascati (LNF), 2006.

Co–organizzatore (con O. Nicrosini e V. Vercesi) di "IFAE 2006, Italian Meeting of High Energy Physics", Pavia, 19–21 Aprile, 2006. Editor con O. Nicrosini e V. Vercesi dei relativi proceedings pubblicati da Springer.

Membro del comitato organizzatore della conferenza "Frontier Science 2003 – A non–linear world: the real world", Pavia, 8–12 Settembre, 2003. Editor con C.M. Carloni Calame e S.P. Ratti dei relativi proceedings pubblicati su Physica A: Statistical Mechanics and its Applications, Physica A338 (2004) 1–306.

POSIZIONI DI RESPONSABILITÀ SCIENTIFICA

Convener teorico per il programma Electroweak Physics, workshop "SM@LHC 2015", Firenze, 21–24 Aprile, 2015.

Convener teorico del gruppo di lavoro Luminosity nell'ambito del working group "Radiative corrections and Monte Carlo generators for low energies", LNF, Frascati. dal 2006 ad oggi

Convener teorico del working group Fisica Elettrodebole, "IFAE 2002, Italian Meeting of High Energy Physics", Parma, Aprile 2002.

Convener teorico del working group Ricerca dell'Higgs a LEP, "NaLEP, Italian Meeting on Physics at LEP", Napoli, Aprile 1998.

ATTIVITÀ DI REFEREE

Physics Letters B, Nuclear Physics B, Computer Physics Communications, Physica A: Statistical Mechanics and its Applications, Journal of Statistical Mechanics: Theory and Experiment, Quantitative Finance, Journal of Theoretical and Applied Finance.

Progetti di ricerca sottomessi al MIUR, alla National Science Foundation, USA e alla Polish Academy of Science.

RECENTI RELAZIONI A CONFERENZE & WORKSHOP

"Radiative corrections and Monte Carlo generators for physics at flavor factories"
Flavour changing and conserving processes (FCCP 2015), 10–12 Settembre 2015, Capri. **su invito**

"W/Z production at the LHC: state of the art of radiative corrections"
SM@LHC 2013, 9–12 Aprile 2013, Friburgo, Germania. **su invito**

"Probing dark forces at GeV–scale colliders"
XXXV International Conference of Theoretical Physics: Matter to the Deepest. Recent Developments in Physics of Fundamental Interactions, 12–18 Settembre 2011, Ustron, Polonia. **su invito**

"Status and accuracy of the Monte Carlo generators for luminosity measurements"
International Conference e^+e^- collisions from ϕ to ψ, 13–16 Ottobre 2009, Pechino, Cina. **su invito**

"Review of precision calculations for the measurement of electroweak gauge boson production and properties at hadron colliders"
The 2007 Europhysics Conference on High Energy Physics, 19–25 Luglio 2007, Manchester, U.K. **su invito**

ATTIVITÀ DI RICERCA

Attività di ricerca nel campo della fisica teorica delle particelle elementari, con particolare riferimento alla fisica di precisione e di scoperta a grandi macchine acceleratrici, nonché nell'ambito della fisica teorica dei sistemi complessi, con particolare attenzione alla modellizzazione dei mercati finanziari attraverso l'utilizzo di modelli stocastici non–Gaussiani tipici dell'econofisica.

- Fenomenologia delle particelle elementari alla frontiera di energia (LHC e Tevatron)
- Fenomenologia delle particelle elementari alla frontiera di intensità (in particolare, ad acceleratori elettrone–positrone alla scala del GeV, note come flavor factories)
- Fenomenologia delle particelle elementari a LEP 2 e ai collider elettrone–positrone (e^+e^-) alla scala del TeV
- Fisica di precisione al picco della Z^0
- Analisi e caratterizzazione del mercato finanziario considerato come paradigma di sistema complesso.

Co–autore di vari programmi di simulazione e fit (e.g. BabaYaga/BabaYaga@NLO, HORACE, TOPAZ0) utilizzati presso i maggiori laboratori di fisica delle alte energie per l'analisi dati.

SOMMARIO DEI PRODOTTI DI RICERCA

Numero totale di lavori: 145, di cui 130 di fenomenologia delle particelle elementari e 15 di fisica teorica dei sistemi complessi, così suddivisi:

Fenomenologia delle particelle elementari

Articoli in riviste *peer reviewed*	70
Preprint	2
Contributi ad atti di conferenze e workshop	33
Report di Working Group	9
CERN Report	15
Attività editoriale	1

Fisica teorica dei sistemi complessi / Econofisica

Articoli in riviste *peer reviewed*	6
Contributi ad atti di conferenze e workshop	8
Attività editoriale	1

INDICATORI BIBLIOMETRICI (27/04/2017)

Database di riferimento: Inspire `http://inspirehep.net/`

- Numero totale di citazioni: 5.464
- h–index: 36

Database di riferimento: Google Scholar `http://scholar.google.com/`

- Numero totale di citazioni: 5.550
- h–index: 40

CV di Gianluca Introzzi

(November 2016)

HIGHER EDUCATION

Alumnus of Collegio Borromeo (1979/83), I obtained my B.S. in Physics *cum laude* from the University of Pavia in 1987, defending a thesis based on my research work at the University of Colorado (Boulder, Colorado, USA) and Fermilab (Batavia, Illinois, USA). After a M.S. in Physics (Pavia – 1987/88), I started my graduate studies (Pavia – 1988/91) on experiment E771 at Fermilab (hadroproduction of beauty particles). Shortly after defending my Ph.D. thesis (1992), I joined the University of Pavia as staff (Ricercatore universitario).

RESEARCH ACTIVITY

After my undergraduate thesis (E687 - Fermilab - 1987) and my Ph.D. thesis (E771 - Fermilab - 1992), I was involved in the SDC project (1992/93) at the SSC (Superconducting Super Collider). When that experience came to an abrupt end with the closure of the SSC Lab, I joined the CDF II experiment in Fermilab (1994).

I remained in CDF II for 20 years, working on the development of new apparatuses and detectors, on data acquisition during Run II with different responsabilities, and on an exchange program devoted to bring young Italian scientists to Fermilab. Meanwhile, I dedicated some time to new experiments such as Fourth Concept Detector and, recently, LBNE and DUNE at Fermilab.

In 2013 I joined the Pavia ATLAS (CERN, Geneva, Switzerland) group and I am now fully involved in the development of MicroMegas Muon Chambers for the ATLAS upgrade. At the beginning of 2014 I was asked to take local responsability for such a project.

PUBLICATIONS

I have signed to date **790 papers** in High Energy Physics (**h index = 106** – Number of citations = 43850 – Citations/Paper = 43850/790 = 55.5).

Source: Inspire-HEP *http://inspirehep.net/author/profile/Gianluca.Introzzi.1* ; full listing available at *http://inspirehep.net* searching for "*find a introzzi, g* ".

I have been editor or co-editor of 4 books, and author or co-author of 4 other books. The last one, still to be published, is the result of my long-term teaching of *Fondamenti della Fisica.*

TEACHING EXPERIENCE

A total of **51 courses** (Master level: 8 – Laurea magistrale: 20 – Laurea di primo livello: 3 – Diploma universitario: 11 – Esercitazioni: 9) equivalent to **188 CFU/ECTS** or **1500 hours.**

In a period of 24 years (1992/2016) I have been teaching for 22 years. I taught an average of 68 hours/year, significantly more than 48 hours/year, the standard usually done (even if not required) by an adjunt professor.
My teaching experience spans from problem solving for Math and Physics students to basic Physics and Radioactivity for students of the medical professions; from Modern Physics and Radioactivity to Foundations of Physics for advanced students in Physics and Mathematics.

THESIS ADVISOR

I have been thesis advisor for a total of 8 theses: 2 tesi di laurea (1993 – 1994), 2 tesi di dottorato (1996 – 1999), 3 tesi di laurea di primo livello (2003 – 2005 – 2016), 1 tesi di laurea magistrale (2008).

CONFERENCE PRESENTATIONS, SEMINARS, PUBLIC TALKS

I have delivered 18 presentations to conferences, 19 seminars for students, and 16 public talks (including *Bergamo Scienza*, October 2015).

EDITORIAL RESPONSABILITIES

I have been for 16 years a consultant for international Physics textbooks for Zanichelli, editor of a book series in Modern Physics for Carocci Editore, co-editor of the II edition of the main italian textbook on Radioactivity, and appointed member of the Scientific and Editorial Committee of *Pavia University Press* (2013/16). I have also been referee for the journals *Foundations of Physics* (2004/10), *Giornale di Fisica* (2008/10), *Paradigmi* (2013), and for the consortium *University Press Italiane* (2014/16). Member of the Editorial Committee of *Accademia degli Agiati* since 2013.

ADMINISTRATIVE DUTIES

I have been involved for a long time (14 years) in an exchange program designed to bring Italian students to Fermilab (Batavia, Illinois, USA) during summertime. An average of 15 physicist and engineers were coming every year to work in different research groups within the laboratory.
Appointed member of the Scientific and Editorial Committee of *Pavia University Press* (2013/16), I have also covered different duties for DFNT, *Dipartimento di Fisica Nucleare e Teorica* (Member of the Scientific Council for the Physics Library (2000/06) – Webmaster of the DFNT website (2006/10)) and for *Dipartimento di Fisica* (Contributor to the departmental website (2013/14) – Member of the Physics Department Committee for space allocation (2014) – Membro della giunta di Dipartimento (2016)).

Curriculum Vitæ (RISERVATO)

Carlo De Vecchi
via Ticinello, 34
27100 Pavia
Italia
Telefono: 0382 987594
E-mail: Carlo.De.Vecchi@pv.infn.it

Nato il 28 Luglio 1966
Nazionalità Italiana
Coniugato
Servizio militare: dispensato.

Attività:

1991-1995: Al CERN sistema di acquisizione dati per il prototipo del rivelatore di particelle *ICARUS e sviluppo elettronica*.

1995-1996: Consulenze nel settore dello sviluppo software.

1996-1998: Presso AIVE come responsabile del gruppi che si occupa del software di base per il settore della logistica.

1998-1999: In qualità di libero professionista ho svolto attività di consulenza nei seguenti campi: Data Base (relazionali ed ad oggetti), sicurezza sistemi, disegno software con metodologie OO.

Set. '99 – Presente: Tecnologo presso la sezione di Pavia dell'INFN.

Lingue

Inglese e Francese.

Educazione

1985 Liceo Scientifico "*Alvise Cornaro*" a Padova.

1994 Laurea in Scienze dell'Informazione conseguita con la discussione della tesi dal titolo: "Un'Applicazione All'Acquisizione Di Dati In Fisica Delle Alte Energie" alla facoltà di Udine.

Pavia li 27 Aprile 2017.

Carlo De Vecchi

Claudio Dappiaggi - April 2017

Ricercatore Universitario Confermato (RTI)
Dipartimento di Fisica
Università degli Studi di Pavia
Via Bassi, 6
I-27100 Pavia (PV)
Italy

Phone: 00390382987440
claudio.dappiaggi@unipv.it

Personal data

Name and surname: Claudio Dappiaggi
Place and date of birth: Genève (Switzerland) - 05 August 1977
Nationality: Italian
Spoken Languages: Italian, English (Excellent), French (good), German (good), Spanish (basic).

Education

Ph.D. in Physics (curriculum: mathematical physics), Università di Pavia, February 2004
Supervisor: Prof. Mauro Carfora (mauro.carfora@pv.infn.it)
Thesis: *Simplicial and asymptotical aspects of the holographic principle*

Degree in Physics, Università di Pavia, 24/03/2000 *Summa Cum Laude*
Supervisor: Prof. Mauro Carfora
Thesis: *Applicazioni del principio olografico in fisica gravitazionale* (transl. Applications of the holographic principle in gravitational physics)

Research and Academic Positions

- **Adjunct Professor/Researcher - Permanent Staff Member in mathematical physics (MAT/07)** from 29/12/2010 at the Department of Physics of the University of Pavia (Italy)
- **Postdoc Fellow** from 01/04/2010 until 30/12/2010 at the II. Institut für Theoretische Physik - University of Hamburg
- **Junior Fellow** from 01/10/2009 (until 31/03/2010) at the Erwin Schrödinger Institute for Mathematical Physics - Wien
- **Humboldt Fellow** since 01/09/2007 (until 30/09/2009) at the II. Institut für Theoretische Physik - University of Hamburg
- **Research Contract** from 01/04/2007 to 31/05/2007: Dipartimento di Fisica - Università di Pavia
- **Research Contract** from 01/10/2006 to 31/12/2006: Dipartimento di Scienze e Tecnologia Avanzate - Università del Piemonte Orientale
  (project leader: Prof. Roberto Catenacci - e-mail:catenacc@unipmn.it)
- **Research Contract** from 01/08/2006 to 30/09/2006: Dipartimento di Fisica - Università di Pavia
- **Postdoc Grant** from 01/07/2004 to 31/07/2006: Dipartimento di Fisica - Università di Pavia
- **Visiting Ph.D.** from 01/01/2003 to 31/07/2003: Spinoza Institute - Utrecht University
- **Ph.D. Student** from 01/11/2000 to 15/02/2004: Dipartimento di Fisica - Università di Pavia

Longer Term Visits

Host: Professor Valter Moretti — 11-25 Feb. 2005
Department of Mathematics - University of Trento

Host: Professor Martin Porrmann — 23-30 May 2009
Centre for Quantum Technologies - University of Durban (South Africa)

Host: Professor Thorsten Ohl — 28 June - 02 July 2010
Institut für Theoretische Physik - Universität Würzburg

Host: Professor Felix Finster — 17-22 Nov. 2014 and 11-22 May 2015
Department of Mathematics - University of Regensburg

Active Collaborations

I am collaborating on one or more projects with members of the following institutions:

- Deparment of Mathematics - UCL (University City London)
- II. Institut für Theoretische Physik - Universität Hamburg
- Erwin Schrödinger Institute - Universität Wien
- Dipartimento di Matematica - Università di Trento
- Dipartimento di Matematica - Università di Genova
- Dipartimento di Matematica - Università di Milano
- Department of Mathematics - Univeristy of Nottingham
- Department of Mathematics - Univerisät Potsdam
- Department of Mathematics - Universität Regensburg
- Department of Mathematics - University of York (UK)

Awards, Honors and Funding

- **National qualification (Habilitation) for associate and for full professor in mathematical physics (01/A4).**
- Erasmus Plus Fellowship at the University of Regensburg in 2015.
- Member of the PRIN "Geometric and analytic theory of Hamiltonian systems in finite and infinite dimensions" (2013-2016) - national coordinator: Boris Dubrovin
- Member of the project *"Influenza della materia quantistica sulle fluttuazioni gravitazionali"* funded by the GNFM-Indam (National Group for Mathematical Physics) in 2013.
- Research responsible for the project *"Topological effects and construction of quantum field theories"* funded by the GNFM-Indam (National Group for Mathematical Physics) in 2012.
- Responsible for the project "Modern Trends in AQFT" financed by the DAAD (Deutscher Akademischer Austauschdienst) and by the "Ateneo Italo-Tedesco",
- Member of the project *"Stati quantistici di Hadamard e radiazione di Hawking da buchi neri rotanti"* funded by the GNFM-Indam (National Group for Mathematical Physics) in 2010.
- *ESI Fellow* for the winter semester Oct.2009-Mar.2010,
- *Humboldt Fellow* from the 01st of October 2007 until the 30th of September 2009,
- *Sigrav Prize 2006* as "outstanding young researcher" awarded from the *Italian Society of Gravitational Physics*,

- Research responsible for the project *"Olografia e spazitempo asintoticamente piatti: un approccio rigoroso"* funded by the GNFM-Indam (National Group for Mathematical Physics) in 2007.

Books

1. Author with Valter Moretti and Nicola Pinamonti of *Hadamard States and the Bulk-to-Boundary Correspondence* – Springer-Verlag (to appear in 2017)
2. Author and Editor together with Romeo Brunetti, Klaus Fredenhagen and Jakob Yngvason of *Advances in Algebraic Quantum Field Theory* – Springer-Verlag (2015)

Publication List – Peer reviewed

1. G. Canepa, C. Dappiaggi and I. Khavkine, "IDEAL characterization of isometry classes of FLRW and inflationary spacetimes," arXiv:1704.05542 [gr-qc].
2. C. Dappiaggi and H. R. C. Ferreira, "On the algebraic quantization of a massive scalar field in anti-de-Sitter spacetime," arXiv:1701.07215 [math-ph], submitted
3. C. Dappiaggi, S. Murro and A. Schenkel, "Non-existence of natural states for Abelian Chern-Simons theory," arXiv:1612.04080 [math-ph], J. Geom. Phys. **116** (2017) 119
4. M. Benini, M. Capoferri and C. Dappiaggi, "Hadamard states for quantum Abelian duality," arXiv:1611.10282 [math-ph], submitted
5. C. Dappiaggi and H. R. C. Ferreira, "Hadamard states for a scalar field in anti-de Sitter spacetime with arbitrary boundary conditions," arXiv:1610.01049 [gr-qc], Phys. Rev. D **94** (2016) no.12, 125016
6. C. Dappiaggi, H. Gimperlein, S. Murro and A. Schenkel, "Wavefront sets and polarizations on supermanifolds," arXiv:1512.07823 [math-ph], J. Math. Phys. **58** (2017) no.2, 023504
7. C. Dappiaggi, N. Drago, "A new deformation argument for Hadamard states via an extended Møller operator," arXiv:1506.09122 [math-ph], Lett. Math. Phys. **106** (2016) no.11, 1587
8. M. Benini and C. Dappiaggi, "Models of free quantum field theories on curved backgrounds" in *Advances in Algebraic Quantum Field Theory*, Springer-Verlag (2015), arXiv:1505.04298
9. C. Dappiaggi "Hadamard States from null Infinity" – invited contribution to *Mathematical Quantum Physics*, published by Birkhäuser Basel, arXiv:1501.04808 [math-ph].
10. C. Dappiaggi, G. Nosari and N. Pinamonti, "The Casimir effect from the point of view of algebraic quantum field theory", Math. Phys. Anal. Geom. **19** (2016), 1, arXiv:1412.1409 [math-ph].
11. C. Dappiaggi and A. Melati, "Curvature fluctuations on asymptotically de Sitter spacetimes via the semiclassical Einstein's equations," arXiv:1406.2223 [gr-qc], Class. Quant. Grav. **31** (2014) 235006.
12. M. Benini, C. Dappiaggi and S. Murro, "Radiative observables for linearized gravity on asymptotically flat spacetimes and their boundary induced states," arXiv:1404.4551 [gr-qc], J. Math. Phys. **55** (2014) 082301.
13. M. Benini, C. Dappiaggi, T. -P. Hack and A. Schenkel, "A C*-algebra for quantized principal U(1)-connections on globally hyperbolic Lorentzian manifolds," arXiv:1307.3052 [math-ph], Comm. Math. Phys. **332** (2014) 477.
14. M. Benini, C. Dappiaggi and T. -P. Hack, "Quantum Field Theory on Curved Backgrounds – A Primer," Int. Jour. Mod. Phys. A **28** (2013) 1330023, arXiv:1306.0527 [gr-qc], invited review.
15. M. Benini, C. Dappiaggi and A. Schenkel, "Quantized Abelian principal connections on Lorentzian manifolds," arXiv:1303.2515 [math-ph], Comm. Math. Phys **330** (2014) 123.
16. K. Sanders, C. Dappiaggi and T. -P. Hack, "Electromagnetism, local covariance, the Aharonov-Bohm effect and Gauss' law," arXiv:1211.6420 [math-ph], Comm. Math. Phys **328** (2014) 625.
17. M. Benini, C. Dappiaggi and A. Schenkel, "Quantum field theory on affine bundles," arXiv:1210.3457 [math-ph], Ann. Henri Poinc. **15** (2014) 171.

18. C. Dappiaggi, D. Siemssen, "Hadamard States for the Vector Potential on Asymptotically Flat Spacetimes," Rev. Math. Phys. **25** (2013) 1350002, arXiv:1106.5575 [gr-qc].

19. C. Dappiaggi, B. Lang, "Quantization of Maxwell's equations on curved backgrounds and general local covariance," Lett. Math. Phys. **101** (2012) 265, arXiv:1104.1374 [gr-qc].

20. C. Dappiaggi *"Remarks on the Reeh-Schlieder property for higher spin free fields on curved spacetimes,"* Rev. Math. Phys. **23** (2011) 1035, arXiv:1102.5270 [math-ph].

21. C. Dappiaggi, T. -P. Hack, N. Pinamonti, *" Approximate KMS states for scalar and spinor fields in Friedmann-Robertson-Walker spacetimes,"* Ann. Henri Poinc. **12** (2011) 1449, arXiv:1009.5179 [gr-qc].

22. C. Dappiaggi, T. P. Hack, J. Moller and N. Pinamonti, *"Dark Energy from Quantum Matter,"* arXiv:1007.5009 [astro-ph.CO].

23. C. Dappiaggi, G. Lechner and E. Morfa-Morales, *"Deformations of quantum field theories on spacetimes with Killing vector fields,"* Comm. Math. Phys. **305** (2011) 99, arXiv:1006.3548 [math-ph]

24. C. Dappiaggi, N. Pinamonti and M. Porrmann, *"Local causal structures, Hadamard states and the principle of local covariance in quantum field theory,"* Comm. Math. Phys. **304** (2011) 459, arXiv:1001.0858 [hep-th]

25. C. Dappiaggi, V. Moretti and N. Pinamonti, *"Rigorous construction and Hadamard property of the Unruh state in Schwarzschild spacetime,"* arXiv:0907.1034 [gr-qc], Adv. Theo. Math. Phys. **15** (2011) 355

26. C. Dappiaggi, T. Hack and N. Pinamonti, *"Remarks on the conformal anomaly for Dirac fields,"*. Rev. Math. Phys. **21** (2009) 1241, arXiv:0904.0612 [math-ph].

27. C. Dappiaggi, V. Moretti and N. Pinamonti, *"Distinguished quantum states in a class of cosmological spacetimes and their Hadamard property,"* J. Math. Phys. **50**, 062304 (2009), arXiv:0812.4033 [gr-qc].

28. C. Dappiaggi, V. Moretti and N. Pinamonti, *"Cosmological horizons and reconstruction of quantum field theories,"* Comm. Math. Phys. **285** (2009) 1129, arXiv:0712.1770 [gr-qc].

29. C. Dappiaggi, K. Fredenhagen and N. Pinamonti, *"Stable cosmological models driven by a free quantum scalar field,"* Phys. Rev. D **77** (2008) 104015, arXiv:0801.2850 [gr-qc].

30. C. Dappiaggi, *"On the Lagrangian and Hamiltonian formulation of a scalar free field theory at null infinity,"* Rev. Math. Phys. **20** (2008) 801, arXiv:math-ph/0607055.

31. C. Dappiaggi, *"Projecting massive scalar fields to null infinity,"* Ann. Henri. Poinc. **9** (2008) 35, arXiv:0705.0284 [gr-qc].

32. M. Carfora, C. Dappiaggi and V. L. Gili, *"Boundary Conformal Field Theory and Ribbon Graphs: a tool for open/closed string dualities,"* JHEP **07** (2007) 21 arXiv:0705.2331 [hep-th].

33. M. Carfora, C. Dappiaggi and V. L. Gili, *"Triangulated surfaces in twistor space: A kinematical set up for open / closed string duality,"* JHEP **12**(2006) 17 [arXiv:hep-th/0607146].

34. C. Dappiaggi, V. Moretti and N. Pinamonti, *"Rigorous steps towards holography in asymptotically flat spacetimes,"* Rev. Math. Phys. **18** (2006) 349 [arXiv:gr-qc/0506069].

35. B. Bertotti, R. Catenacci and C. Dappiaggi, *"The legacy of pseudospheres: from geometry to physics"* Riv. Nuovo Cimento **29** (2006) 1.

36. C. Dappiaggi and S. Raschi, *"Spectroscopy of an AdS Reissner-Nordstroem black hole,"* Int. J. Mod. Phys. D **15** (2006) 439 [arXiv:gr-qc/0507015].

37. B. Bertotti, R. Catenacci and C. Dappiaggi, *"Pseudospheres in geometry and physics: From Beltrami to de Sitter and beyond,"* Rend. Ist. Lombardo A Sci.Mat.Fis.Chim.Geol. **39** (2007) 165 arXiv:math.ho/0506395.

38. C. Dappiaggi, *"Elementary particles, holography and the BMS group,"* Phys. Lett. B **615** (2005) 291 [arXiv:hep-th/0412142].

39. C. Dappiaggi, *"BMS field theory and holography in asymptotically flat space-times,"* JHEP **0411** (2004) 011 [arXiv:hep-th/0410026].
40. G. Arcioni and C. Dappiaggi, *"Holography in asymptotically flat space-times and the BMS group,"* Class. Quant. Grav. **21** (2004) 5655 [arXiv:hep-th/0312186].
41. M. Carfora, C. Dappiaggi and A. Marzuoli, *"The conformal geometry of random Regge triangulations,"* published in 'Advances in General Relativity and Cosmology', Giorgio Ferrarese (Ed.) arXiv:gr-qc/0310039.
42. G. Arcioni and C. Dappiaggi, *"Exploring the holographic principle in asymptotically flat spacetimes via the BMS group,"* Nucl. Phys. B **674** (2003) 553 [arXiv:hep-th/0306142].
43. G. Arcioni, M. Carfora, C. Dappiaggi and A. Marzuoli, *"The WZW model on random Regge triangulations,"* J. Geom. Phys. **52** (2004) 137 [arXiv:hep-th/0209031].
44. M. Carfora, C. Dappiaggi and A. Marzuoli, *"The modular geometry of random Regge triangulations,"* Class. Quant. Grav. **19** (2002) 5195 [arXiv:gr-qc/0206077].

Conference proceedings

1. C. Dappiaggi *"An overview on algebraic quantum field theory"* Proceedings of the Humboldt Kolleg, held in Corfu (September 2015), PoS CORFU **2015** (2016) 098.
2. V. L. Gili, M. Carfora and C. Dappiaggi, *"BCFT and Ribbon Graphs as tools for open/closed string dualities,"* arXiv:0710.5899 [hep-th] in the Proceedings of the 7th International Workshop Lie Theory and Its Applications in Physics held in Varna (Bulgaria) 18-24 (June 2007) - Bulg. J. Phys. **35** (2008) 107.
3. C. Dappiaggi *"Holography in asymptotically flat spacetimes: recent results and perspectives"* Proceedings of the XVII Sigrav Meeting held in Turin 4-7 September 2006 available at `http://www.sigrav.org/Private/Procs.it.php`.
4. C. Dappiaggi, *"Can we implement the holographic principle in asymptotically flat spacetimes?,"* Proceeding of the IV International Symposium on *"Quantum Theory and Symmetries"* Heron Press (2006) ed. V.K. Dobrev arXiv:hep-th/0511020.
5. C. Dappiaggi, *"BMS field theory and the open roads,"* J. Phys. Conf. Ser. **33** (2006) 254.
6. M. Carfora, C. Dappiaggi and V. Gili, *"Simplicial aspects of string dualities,"* AIP Conf. Proc. **751** (2005) 182 [arXiv:hep-th/0410006].
7. G. Arcioni and C. Dappiaggi, *"Holography and BMS field theory,"* AIP Conf. Proc. **751** (2005) 176 [arXiv:hep-th/0409313].

Other E-prints

1. C. Dappiaggi, *"Simplicial and asymptotical aspects of the holographic principle,"* arXiv:gr-qc/0403072. (Ph.D. thesis)

Invited Talks

- 13/04/2017 - Department of Mathematics - Workshop *QFT Day in Milan: mathematical aspects of renormalization*, University of Milan – *"On the construction of the Green operators and of the ground state for a massive scalar field theory in AdS"*
- 02/12/2016 - Department of Mathematics - University of Trento – *"On the construction of the Green operators and of the ground state for a massive scalar field theory in AdS"*
- 02/12/2016 - Department of Mathematics - University of Trento – *"On the construction of the Green operators and of the ground state for a massive scalar field theory in AdS"*
- 03/11/2016 - Department of Mathematics - University of Potsdam – *"On the construction of the Green operators and of the ground state for a massive scalar field theory in AdS"*

- 25/09/2015 - Algebraic Quantum Field Theory on Lorentzian Manifolds - Minisymposium at the Deutsche Mathematiker-Vereinigung (Hamburg) - *"A novel deformation argument for Hadamard state via an extended Møller operator"*
- 20/09/2015 - Workshop "Open problems in theoretical physics: the issue of quantum space-time" (Corfu - Greece) - *"An overview on algebraic quantum field theory on curved spacetimes"*
- 09/09/2015 - Programme "Modern Theory of Wave equations" (ESI - Vienna) - *"A novel deformation argument for Hadamard state via an extended Møller operator"*
- 20/07/2015 - Conference "Operator Algebras and Quantum Physics" (Sao Paolo (Brazil) - ICMP Satellite Meeting) - *"A novel deformation argument for Hadamard state via an extended Møller operator"*
- 14/07/2015 - Marcel Grossman meeting (Rome - La Sapienza) - *"A novel deformation argument for Hadamard state via an extended Møller operator"*
- 31/03/2015 - Workshop "Problemi attuali di fisica teorica" (Vietri sul Mare) - *"Remarks on the Casimir effect from the point of view of algebraic quantum field theory"*
- 11/02/2015 - Conference "New trends in Algebraic Quantum Field Theory" - *"Curvature Fluctuations in Asymptotically de Sitter Spacetimes"*
- 21/11/2014 - Oberseminar Analysis at the Department of Mathematics - University of Regensburg
- 20/11/2014 - Colloquium at the Department of Mathematics - University of Regensburg
- 30/10/2014 - Department of Mathematics - University of Milan - *"The Casimir effect from the point of view of algebraic quantum field theory"*
- 29/09/2014 - Conference "Quantum Mathematical Physics" (Regensburg) - *"On the construction of Hadamard states from null infinity"*
- 15/09/2014 - Meeting "Operator and Geometric Analysis on Quantum Theory" (Trento) - *"Remarks on the Casimir effect from the point of view of algebraic quantum field theory"*
- 03/07/2014 - Conference "Asymptotic Analysis in General Relativity" (Grenoble) - *"On the role of asymptotic structures in the construction of quantum states"*
- 25/10/2013 PRIN meeting - Università di Roma 3 - *"On the phase space of Maxwell's equations"*
- 22/07/2013 Conference "New Crossroads between Mathematics and Quantum Field Theory" - MFO (Oberwolfach) - *"Hadamard states from null boundaries"*
- 22-26/04/2013 Conference "Variational and spectral methods in Quantum Field Theory" - IHP (Paris) - *"The principle of general local covariance and the quantization of electromagnetism"*
- 06/02/2013 Workshop "Nonlinear waves and integrable systems 2013" - Sissa (Trieste) - *"Hyperbolic PDEs and algebraic quantum field theory"*
- 16/11/2012 Workshop "Perspectives of Fundamental Cosmology" - Nordita (Stockholm) - *"Quantum field theory on curved backgrounds and Hadamard states"*
- 16/11/2012 Workshop "Perspectives of Fundamental Cosmology" - Nordita (Stockholm) - *"Stable cosmological models and the semiclassical Eintein's equations"*
- 26-28/09/2012 Workshop "Algebraic Quantum Field Theory and local symmetries" - Hausdorff Research Center for Mathematics (Bonn) - *"New insights the quantization of Maxwell's equations on curved backgrounds"*
- 12/09/2012 Workshop "New Trends in Algebraic Quantum Field Theory" - Center for Mathematical Physics (Frascati - Rome) - *"New insights the quantization of Maxwell's equations on curved backgrounds"*
- 13/04/2012 Convegno di Fisica Matematica in onore di Roberto Catenacci - University of Piemonte Orientale (Alessandria): *"The Bertotti-Robinson Universe and the quantization of Maxwell's equations on curved backgrounds"*

- 26/09/2011 Workshop "Rigorous Quantum Field Theory in the LHC Era" - Erwin Schrödinger Institute (Vienna): *"On the quantization of Maxwell's equations on curved backgrounds"*
- 05/07/2011 University of Hamburg: *"The surprises of the quantization of Maxwell's equations on curved backgrounds"*
- 26/05/2011 University of Genova: *"On higher spin fields and their quantization on curved backgrounds"*
- 24/05/2011 Workshop "Noncommutativity and Physics: Spacetime Quantum Geometry" - Bayrischzell (Germany) *"Deformation of quantum field theories and curved backgrounds"*
- 21/02/2011 University of Utrecht: *"On the Contribution of Free Fields to ΛCDM"*
- 24/08/2010 Workshop "Quantum Field Theory on Curved Spacetime - From the Algebraic Approach to Local Covariance" (Durban): *"Local causal structures, local Hadamard states and local covariance"*
- 28/06-02/07/2010 University of Würzburg: course on *"Introduction to quantum field theory on curved backgrounds"*
- 12/05/2010 University of Hamburg: *"From local causal structures to Hadamard states"*
- 29/03/2010 Workshop "Problemi attuali di fisica teorica" - (Vietri sul Mare): *"Beyond the event horizon: the Hadamard property of the Unruh state"*
- 25/03/2010 Workshop "Quantum Field Theory on curved spacetimes" - (ESI, Vienna): *"Beyond the event horizon: the Hadamard property of the Unruh state"*
- 29-30/01/2010 University of Leipzig: speaker in the Mitteldeutsche Physik Combo, giving a course entitled: *"Introduction to Quantum Field Theory on curved Backgrounds with the algebraic formalism - part II"*
- 26/01/2010 University of Vienna: *"Examples and explicit construction of Hadamard states"*, final lecture of the course "Quantum field theory over curved backgrounds"
- 13/01/2010 University of Hamburg: *"Peeking through the horizon: the Hadamard property of the Unruh state"*
- 08-09/01/2010 University of Jena: speaker in the Mitteldeutsche Physik Combo, giving a course entitled: *"Introduction to Quantum Field Theory on curved Backgrounds with the algebraic formalism - part I"*
- 03/12/2009 University of Vienna: *"An application of semiclassical Einstein's equations in cosmology"*
- 24-25/06/2009 University of Leipzig: mini-course *"On the role of asymptotic structures in quantum field theory over curved backgrounds"*
- 29/05/2009 University of Durban: *"Distinguished quantum ground state in Friedmann-Robertson-Walker spacetimes"*
- 27/05/2009 University of Durban: *"From semiclassical Einstein's equations to cosmology"*
- 23/04/2009 SFB Colloquium (Hamburg): *"Algebraic quantum field theory meets cosmology"*
- 03/03/2009 SFB Meeting (Bergedorf): *"Algebraic quantum field theory meets cosmology"*
- 23/02/2009 University of Pavia: *"Quantum field theory over curved backgrounds and cosmology"*
- 14/01/2009 University of Hamburg: *"Distinguished ground states in cosmological spacetimes"*
- 27/05/2008 Department of Mathematics - York University: *"Mathematical aspects of the holographic principle"*
- 11/01/2008: Courant Center - Universität Göttingen: *"Formal Aspects of the Holographic Principle in Asymptotically Flat Spacetimes"*
- 24/10/2007 University of Hamburg: *"The road to holography in asymptotically flat spacetimes"*

- 10/05/2007 Department of Mathematics - Heriot Watt University (Edinburgh): *"The holographic principle and asymptotically flat spacetimes"*
- 28/11/2006 Department of Advanced Sciences and Technologies - Università del Piemonte Orientale (Alessandria) *"Holography and asymptotically flat spacetimes: results and perspectives"*.
- 04/09/2006 Sigrav Meeting (Turin) - *"Exploring holography in asymptotically flat spacetimes via the BMS group"*
- 11/05/2006 Department of Physics - Università di Como *"The holgraphic principle in asymptotically flat spacetimes: new results and perspectives,"*
- 6/04/2006 Assemblea Nazionale GNFM: *"Quantum field theory and holography on the null boundary of an asymptotically flat spacetime"*
- 14/08/2005 QTS-4 Conference held in Varna: *"The neverending quest of holography in asymptomatically flat space-times"*
- 28/01/2005 Department of Physics - Università di Trento *"The Quest for holography in asymptotically flat spacetimes"*

Contributed Talks

- 09 July 2013: 20th International Conference on General Relativity and Gravitation - Warsaw: *"On the algebraic quantization of Abelian gauge theories on curved spacetimes"*
- 01 June 2013: 32nd Workshop on Foundation and Constructive Aspects of QFT - Wuppertal: *"The principle of general local covariance and the quantization of Abelian gauge theories"*
- 08 August 2012: XVII International Congress in Mathematical Physics (Aahrus) *"New insights the quantization of Maxwell's equations on curved backgrounds"*
- 05 August 2009: XVI International Congress in Mathematical Physics (Prague) *"Studying the back-reaction of quantum scalar fields in a cosmological scenario"*
- 12 March 2009: DPG Tagung - München *"A novel point of view on the conformal anomaly of quantised Dirac fields"*
- 27 June 2008: 40th Symposium on Mathematical Physics - Torun: *"Cosmological Horizons and Reconstruction of Quantum Field Theories"*
- 07 June 2008: 22nd Workshop on Foundation and Constructive Aspects of QFT - Hamburg: *"Cosmological Horizons and Reconstruction of Quantum Field Theories"*
- 30 June 2007: 20th Workshop on Foundation and Constructive Aspects of QFT - Leipzig: *"Projecting massive scalar fields on null infinity: a step towards an holographic description"*
- 10 Dec. 2005: 17th Workshop on Foundation and Constructive Aspects of QFT - Göttingen: *"Aspects of Holography in Asymptotically Flat Spacetimes and the BMS Group"*
- Sep.2005 Constr. Dyn. and Quant. Grav. Conference - Cala Gonone: *"The neverending quest of holography in asymptotically flat space-times"*
- 21 March 2005 Problemi Attuali di Fisica Teorica - Vietri sul Mare: *"The neverending quest of holography in asymptotically flat space-times"*
- Sep. 2004 XVI SIGRAV - Vietri Sul Mare: *"Aspects of Holography in Asymptotically Flat Spacetime and the BMS Group"*
- July 2004 GR17 - (Dublin): *"Holography in asymptotically flat space-times and the BMS group"*
- April 2004 Problemi Attuali di Fisica Teorica - Vietri Sul Mare: *"Holography in asymptotically flat space-times and the BMS group"*
- March 2004 319th Heraeus Seminar - Mathematical Relativity held in Bad-Honnef: *"Exploring the holographic principle in flat space-times via the BMS group"*
- Feb. 2003 Spinoza Institute - Utrecht: *"Modular properties of Random Regge Triangulations"*

Editorial board

- Editor for *Advances in Mathematical Physics* – Hindawi
- Editor for *Geometric Flows* – De Gruyter
- Review editor for *Frontiers in mathematical physics* - till 2016

Referee for international research projects

- Referee for the PCE projects - Romanian Executive Agency for Higher Education, Research, Development and Innovation Funding
- Referee for the SIR projects - MIUR (Italian ministry for research and university)
- Referee for the DFG (German Research Foundation)

Referee and Reviewer - peer reviewed journals

- JHEP
- International Journal of Geometric Methods in Modern Physics
- Proceedings of the Royal Society - Series A
- Journal of Differential Geometry
- Letters in mathematical physics
- Communications in mathematical physics
- Canadian Journal of Physics
- Frontiers in mathematical physics
- European Physical Journal C
- The Hadronic Journal
- Foundations of Physics
- Reviews in Mathematical Physics
- SIGMA
- Journal of Mathematical Physics
- Journal of Physics A
- Annales Henri Poincaré
- Physical Review Letters
- Classical and Quantum Gravity
- General Relativity and Gravitation
- Reviewer for Mathematical Reviews - American Mathematical Society – till 2015

Ph.D. Students

- Francesco Bussola - 10/2015-10/2018 - Project tba
- Simone Murro - 05/2014 - 04/2017 - *"Quantum States on the algebra of observables for Dirac fields"* – Co-supervisor at the University of Regensburg (supervisor: Prof. Felix Finster)
- Samuel Rutili - 10/2013-04/2017 - Project on *"Thermal states on curved backgrounds for interacting quantum field theories"*
- Gabriele Nosari - 10/2013 - 02/2017 - Project on *"On the algebraic approach to the dynamical Casimir effect"*
- Marco Benini - 10/2011 - 01/2015 - *"Locality in Abelian gauge theories over globally hyperbolic spacetimes"* (excellent)

Laurea Thesis Supervisor and Co-supervisor

- December 2017 - MSc - Luca Apadula (University of Pavia & Sissa)
- October 2017 - IUSS - Giovanni Brigati (University of Pavia) - in preparation
- October 2017 - IUSS - Angelo Caravano (University of Pavia) - in preparation
- July 2017 (tentative date) - BSc - Rubens Longhi (University of Pavia) - in preparation.
- July 2017 (tentative date) - BSc - Alice Marveggio (University of Pavia) - in preparation.
- May 2017 - IUSS - Matteo Capoferri (University College London) - "A microlocal-analytic approach to the propagator of the wave operator" - in preparation
- December 2016 - MSc - Gioele Botta (University of Pavia & Sissa) - "New cosmological singularity resolution from quantum gravity: the Emergent-Bouncing universe" (full marks and honours).
- October 2016 - BSc - Angelo Naldi (University of Pavia) - "Introduzione alle equazioni di Eulero con applicazioni ai flussi potenziali" (104/110).
- September 2016 - BSc - Denny Trimcev (University of Pavia) - "Solitonic Solutions of NLS equation applied to Bose-Einstein Condensates" (110/110).
- September 2016 - IUSS - Paolo Rinaldi (University of Pavia) - "C*- and von Neumann Algebras: Structural Aspects of the Observables of a Quantum System" (excellent)
- July 2016 - MSc - Giovanni Canepa (University of Pavia) - "An Ideal Characterization of Friedmann-Lemaitre-Robertson-Walker Spacetimes" (full marks and honours)
- July 2016 - MSc - Matteo Capoferri (University of Pavia) - "Algebra Of Observables And States For Quantum Abelian Duality" (full marks and honours) – **awarded with the Grazioli Price 2016 at the Istituto Lombardo**
- July 2016 - BSc - Paolo Rinaldi (University of Pavia) - "Criteri per l'Identificazione di Osservabili in Meccanica Quantistica" (full marks and honours)
- November 2015 - MSc - Antonio Michele Miti (University of Milan) - "Algebraic Quantization of Jacobi Fields and Geometric Approach to Peierls Brackets" (110/110).
- October 2015 - BSc - Marcello Lanfranchi (University of Pavia) - "Formalizzazione algebrica del processo di quantizzazione e deformazione di C*-algebra" (103/110).
- July 2015 - BSc - Gabriele Benomio (University of Pavia) - "Thermal equilibrium states in the algebraic formulation of quantum mechanics" (full marks and honours).
- December 2014 - MSc - Federico Faldino (University of Pavia) - "On the loop quantization of field theories" (full marks).
- October 2014 - IUSS - Giovanni Canepa (University of Pavia) - "Riesz potentials and construction of Green functions for wave-like equations" (excellent)
- October 2014 - IUSS - Matteo Capoferri (University of Pavia) - "The handling of singularities: an introduction to microlocal analysis" (excellent)
- October 2014 - IUSS - Sara Riccó (University of Pavia & of Geneva) - "B-modes and the CMB" (excellent)
- July 2014 - BSc - Matteo Capoferri (University of Pavia) - "On the time observable in non-relativistic quantum mechanics" (full marks and honours)
- July 2014 - BSc - Giancarlo Croce (University of Pavia) - "Operatori di Casimir" (full marks and honours).
- April 2014 - MSc - Alberto Melati (University of Pavia) - "Curvature fluctuations in asymptotically de Sitter spacetimes" (110/110).
- April 2014 - MSc - Sara Riccó (University of Pavia) - "States of low energy for the Dirac field on cosmological spacetimes" (full marks and honours).

- December 2013 - BSc - Matteo Facchini (University of Pavia) - "Gruppi di simmetria e regola di superselezione di Bargmann" (full marks and honours).
- October 2013 - MSc - Gabriele Nosari (University of Pavia) - "Point-splitting Hadamard regularization and the Casimir effect" (110/110)
- October 2013 - MSc - Simone Murro (University of Pavia) - "Hadamard states for linearized gravity in asymptotically flat spacetimes" (110/110).
- May 2013 - IUSS - Matteo Lostaglio (University of Pavia & Imperial College) - "Geometry and Physics: Gauge and Lorentz invariance" (outstanding)
- May 2013 - IUSS - Alessio Belenchia (University of Pavia & SISSA) - "Inflazione cosmologica: teoria ed osservazioni" (outstanding)
- February 2012 - BSc - Luca Mantovani (University of Pavia) "On the algebraic formulation of quantum mechanics" (104/110)
- December 2011 - BSc - Daniele Castellana (University of Pavia) "Relativity and Thermodynamics" (full marks)
- November 2011 - BSc - Davide Polini (University of Pavia) "On the dynamics of free field from the representations of the Poincaré group" (full marks and honours)
- October 2011 - MSc - Marco Benini (University of Pavia) "On the relative Cauchy evolution for spin 1 fields" (full marks and honours)
- May 2011 Daniel Siemssen (Universität Hamburg): "Hadamard states for the vector potential in asymptotically flat spacetimes" `http://www.desy.de/uni-th/theses/Dipl_Siemssen.pdf`, co-supervisor
- July 2005 Simona Raschi: "Black holes spectroscopy" (full marks and honours), co-supervisor
- March 2004 Davide Cassani: "Topological field theories and the quantum Hall effect" (full marks and honours), co-supervisor
- March 2003 Giuditta Parolini: "Lie algebra and conformal field theories" (full marks and honours), co-supervisor

Committees

- 24/04/2017 Referee and member of the evaluation committee for the final dissertation of Simone Murro (Univ. of Regensburg - Ph.D. in mathematics)
- 24/02/2016 Referee and member of the evaluation committee for the final dissertation of Antoine Géré (Univ. of Genova - Ph.D. in mathematics)
- 22/02/2016 Member of the evaluation committee for the final dissertation of Davide Fermi (Univ. of Milan - Ph.D. in mathematics)
- 13/11/2014 Member of the evaluation committee for the final dissertation of Davide Pastorello (Univ. of Trento - Ph.D. in mathematics)
- 2013-2016 Member of the Joint Committee of the Department of Physics - University of Pavia
- February 2013 Referee for the Ph.D. thesis of Zhirayr Avetisyan - Institute of Physics at the Univ. of Leipzig

Teaching Experience

- Chair of "Group Theory and Physical Symmetries" (6 credits), academic year 2015/2016 (degree in physics and mathematics - Univ. Pavia)
- Chair of "Mathematical Introduction to Fluid Dynamics", academic year 2016/2017 (IUSS Pavia - Class of Science)
- Chair of "Mathematical Methods in Physics II" (6 credits), academic year 2016/2017 (bachelor in physics - Univ. Pavia)
- Chair of "Mathematical methods of quantum theories", graduate school in physics, academic year 2015/2016,
- Chair of "Group Theory and Physical Symmetries" (6 credits), academic year 2015/2016 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Classical Mechanics" (3 credits), academic year 2015/2016 (degree in physics - Univ. Pavia)
- Chair of "Group Theory and Physical Symmetries" (6 credits), academic year 2014/2015 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Classical Mechanics" (3 credits), academic year 2014/2015 (degree in physics - Univ. Pavia)
- Chair of "Spacetime Structure, Cosmology, and Quantum Field Theory", academic year 2013/2014 (PhD programme in physics - Univ. Pavia)
- Chair of "Group Theory and Physical Symmetries", academic year 2013/2014 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Classical Mechanics" (3 credits), academic year 2013/2014 (degree in physics - Univ. Pavia)
- Chair of "Group Theory and Physical Symmetries", academic year 2012/2013 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Classical Mechanics", academic year 2012/2013 (degree in physics - Univ. Pavia)
- Coordinator of the Ph.D. course "Spacetime structure, Cosmology, and Quantum Field Theory", Ph.D. school in Physics, academic year 2012/2013,
- Chair of "Group Theory and Physical Symmetries", academic year 2011/2012 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Classical Mechanics", academic year 2011/2012 (degree in physics - Univ. Pavia)
- Assistant for "General Relativity", academic year 2010/2011 (degree in physics and mathematics - Univ. Pavia)
- Assistant for "Quantum Mechanics 2", academic year 2008/2009 (degree in physics and mathematics - Univ. Hamburg)
- Teaching assistant for "Differential Equations and Dynamical Systems", academic year 2006/2007 (degree in physics and mathematics - Univ. Pavia)
- Teaching assistant for "Group Theory", academic year 2006/2007 (degree in physics and mathematics - Univ. Piemonte Orientale)
- Seminars for "General Relativity", academic year 2005/2006. (degree in physics and mathematics - Univ. Pavia)
- Teaching assistant for "Gruppi e Simmetrie Fisiche" (Group theory and Physical Symmetries), academic year 2005/2006. (degree in physics and mathematics - Univ. Pavia)
- ~~Teaching assistant for "Meccanica Razionale" (Classical Mechanics), academic year 2004/2005. (degree in physics - Univ. Pavia),~~

- Teaching assistant for "Geometria" (Linear Algebra) academic year 2002/2003 (degree in physics and mathematics - Univ. Pavia),
- Tutor for the physics course - degree in "chemistry technician". academic year 2000-2001,
- Tutor for Electromagnetism and Experimental Electromagnetism, academic year 1999-2000 and 2000-2001 (degree in physics - Univ. Pavia).

Conference and Seminar Organization

- Member of the Organizing Committee of the topical Workshop "Foundational and structural aspects of gauge theories", MITP - Mainz (27th of May – 02nd of June 2017),
- Member of the Organizing Committee of the topical Workshop "Microlocal Analysis: A Tool to Explore the Quantum World", Department of Mathematics - Genoa (12-13 January 2017),
- Member of the Organizing Committee of the Workshop "Algebraic Quantum Field Theory: its status and its future", Erwin Schrödinger Institute - Vienna (19th-23rd May 2014),
- Member of the Organizing Committee of the Mini-Workshop "New Crossroads between Mathematics and Field Theory", Oberwolfach (21st-27th July 2013),
- Member of the Scientific Committee of the Conference "Mathematical Aspects of Quantum Field Theory and Quantum Statistical Mechanics", Satellite Meeting of the ICMP2012, Hamburg (30th of July - 01st of August 2012),
- Member of the Scientific Committee of the Workshop "Planckland: Quantum Geometry and Matter", Sissa-Trieste (13th-18th February 2012),
- Member of the Organizing Committee of the Workshop "Modern Trends in Algebraic Quantum Field Theory", Pavia (14th-16th September 2011),
- Member of the Organizing Committee of the Workshop "Foundational Aspects of Cosmology", Hamburg (16th-18th February 2011),
- Organizer of the Mathematical and Quantum Field Theory Seminars at the II. Insitut für Theoretische Physik (Hamburg Universität) - 2008/2009,
- Member of the Organizing Committee of the 22nd LQP Workshop, Hamburg (06th-07th June 2008),
- Member of the Conference Secretariat for the Conference "Spacetime in action", Pavia (29-03/02-04 2005).

Outreach

F. Bussola and C. Dappiaggi, *Ligo e Le Onde Gravitazionali*, RADIAZIONI RICERCA E APPLICAZIONI, Periodico della Società Italiana per le Ricerche sulle Radiazioni, Vol XIX (2016).

Several talks for high school classes and at the π-day on General Relativity and Gravitational waves. I built and presented together with N. Protti (INFN - Pavia) a solar oven for the ERN 2016.

Technical Skills

Computer Skills: Linux, LaTeX, Html.

Curriculum Vitae

Silva Bortolussi
Place and date of birth: Latisana, UD, 08 November 2017
Home address: via Colombarolo 7, 27028 San Martino Siccomario, Pavia, Italy

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E-mail address: silva.bortolussi@pv.infn.it silva.bortolussi@unipv.it
Telephone: +39 0382 98 76 35
website: www.bnct.it

Present Position
Senior Researcher (RTDb) at Department of Physics, University of Pavia

Past Positions
Fixed-Term Researcher at INFN
Fixed-Term Researcher at University of Pavia
Post-doc at INFN and at University of Pavia.

Research interests:
My research interests are in the field of nuclear physics applied to medicine and biology, in particular in Boron Neutron Capture Therapy (BNCT). I perform computational dosimetry by Monte Carlo calculations of neutron and gamma transport, and treatment planning simulations. I am interested in the development and employ of new models to express BNCT dose in photon-equivalent units. From the experimental point of view, I perform boron concentration measurements in biological samples by alpha spectrometry and neutron autoradiography especially finalized to assess the feasibility of BNCT for different kinds of tumours or with different boron carriers.
Presently, I am working to the realization of a new BNCT facility for clinical trials based on the use of a proton accelerator. In particular, I collaborate in the design of suitable neutron beams on the basis of the dosimetric performances in relevant clinical scenarios.
I manage international collaborations (especially in Latin America) and I am active in fund raising and technology transfer activities. I coordinate outreach activities such as European Researchers Night.

Teaching:
I am chair of the course "Simulations in bio-sanitary field", for the MSc in Physics, University of Pavia (http://fisica.unipv.it/dida/Insegnamento.php?id=24768). I am chair of the course "Experimental Physics" for the BSc in Biotechnology, University of Pavia (http://genmic.unipv.eu/site/home/didattica/articolo80004903.html#FISICA_SPERIMENTALE_-_CORSO_B).

Education
June 2015 Master Executive in Open Innovation and Knowledge Transfer (110/110 cum laude) MIP, Milan Polytechnic, II level Master

Thesis "A Successful External Funds Service", Supervisor Dr M.Arena (Milan Polytechniv), Tutors Dr V.Vercesi (INFN, Unit of Pavia) and Dr B.Chiucconi (University of Macerata)

January 2008 Ph.D. in Physics, University of Pavia, Italy

Thesis "Boron Neutron Capture Therapy of Disseminated Tumours", supervisor Prof S.Altieri (University of Pavia), Referee Dr R.Moss (JRC, Petten, The Netherlands)

May 2004 Master of Science in Physics (110/110 cum laude), University of Trieste, Italy

Thesis "Una originale configurazione del campo neutronico per una migliore uniformità della dose nell'organo espiantato", supervisor prof L.Bertocchi (University of Trieste) co-supervisors, Prof. T.Pinelli and Prof S.Altieri (University of Pavia)

July 1997 Secondary School degree (60/60), Liceo Scientifico E.Majorana, San Vito al Tagliamento, Pordenone, Italy

Awards, Grants and Honors

Fairchild Award for young researchers, at 11th International Congress of Neutron Capture Therapy (ICNCT), Japan, 2006

Award for young researchers in the field of tumours of young age "Giovanni Carcea", Crotone, 2012

Secretary General of International Society on Neutron Capture Therapy (ISNCT)

Delegate for Pavia University at the Latin America Working Group – COIMBRA Group

President of Organizing Committee of 8th YBNCT, September 2015, Pavia, Italy

Member of Organizing Committee of 13th ICNCT, November 2008, Florence, Italy

Member of Scientific Committee of 14th, 15th and 16th ICNCT (2010 Argentina, 2012 Japan and 2014 Finland, respectively).

Member of Scientific Committee of 7th Young researcher BNCT meeting, 2013, Granada, Spain.

Member of Executive Board of Italian Society of Research in Radiation (SIRR)

2011-2013: Principal Investigator of the project "La terapia per cattura neutronica: una nuova prospettiva per il trattamento dell'osteosarcoma" funded in the call FIRB-Futuro in Ricerca 2008

2013-2016: local responsible of the INFN experiments NeTTuNO and NeuTargs

2013-2015: participant in INFN "progetto premiale" MUNES "Multidisciplinary Neutron Source"

2012-2014: local responsible of the project: "Boron Neutron Capture Therapy (BNCT) in cutaneous recurrences of breast cancer: the diagnostic and therapeutic utility of 18F-FBPA PET/CT" funded by Italian Ministry of Health in the scheme "ricerca finalizzata 2010"

Other Funded Projects:

- 2017 Coordinator of a project funded by CUIA (Consorzio Università Italia Argentina) for the organization of a workshop in Buenos Aires.
- 2016-2018 PI od INFN project BEAT_PRO

- 2016-2018 local responsible of MAECI project NEU_BEAT, executive programme of scientific and technological cooperation between Italy and China 16-18
- 2014-2016 participant in Project PIP, CONICET, Argentina.
- 2014-2016 participant in Project PICT "Terapia por Captura Neutrónica en Boro (BNCT) para un tratamiento novel de metástasis múltiples en pulmón: estudio de BNCT ex-situ en oveja y estudio de BNCT in-situ en rata", CONICET, Argentina.
- 2011-2012 participant in CARIPLO project "Characterization of boron carrying magnetic nanoparticles for MRI assisted BNCT (Boron Neutron Capture Therapy)"
- 2011-2012 participant in INFN experiment MIMO-BRAGG
- 2011-2013 participant in INFN experiment ARCO
- 2009-2012 participant in INFN experiment Widest1
- 2007-2008 participant in INFN experiment Widest
- 2007-2008 participant in PRIN 2006 "Trattamento metastasi polmonari mediante cattura neutronica: studi preliminari"
- 2007-2008 participant in INFN experiment ELBA
- 2005-2006 participant in PRIN 2004 "Misura di assorbimento del boro in tessuto polmonare di ratto affetto da tumore"
- 2006-2010 participant in an International FIRB project 2004 "Studi proteomici e farmacocinetici in relazione alla terapia antitumorale BNCT
- 2004-2006 participant in INFN experiment TAoRMINA3

Research Products

(From Sopus database)

Publications: **57**

Citations: **432**

h-index: **10**

Pavia, 28 April 2017