

Curriculum Vitæ of Fedele Lizzi

Personal Information

Address: Dipartimento di Scienze Fisiche
Università di Napoli *Federico II*
Complesso Universitario di Monte Sant'Angelo, Via Cintia
I-80126, Napoli, Italy

Phone: + 39 081676487 (Office)
+ 39 3483830835 (cell)
+ 39 0815799268 (home)

Fax: + 39 081676487

e-mail: fedele.lizzi@na.infn.it

Born: 19 October 1956 in Napoli, Italy.

Italian Citizen.

Present Position

Professor of Theoretical Physics and Mathematical Models at the University of Napoli *Federico II*.

Previous Employments

1989-1991 Research Associate at the International Centre for Theoretical Physics, Trieste.

1985-1989 Research Associate at the Rutherford Appleton Laboratory, Didcot, Oxford, UK.

1980-1985 Teaching and Research Assistant, Syracuse University.

University Degrees

- 1985 Ph.D. in Theoretical High Energy Physics, Syracuse University. Thesis Advisor: A.P. Balchandran.
- 1982 Master Degree, Syracuse University.
- 1979 Laurea con Lode, Università di Napoli *Federico II*, Thesis advisors: Francesco Zaccaria and Giuseppe Marmo.

Long term visits

- 2008-2009 Visitor at the Departament de Estructura Components de la Materia, Universitat de Barcelona from October 2009 to June 2010.
- 2002-2003 Sabbatical year spent visiting Heriot Watt University, Edinburgh and the Institute of Mathematical Sciences, Chennai, India.
- 2001 Visiting Scientist at the E. Schrödinger International Institute for Mathematical Physics, Vienna, Austria for the month of September.
- 2001 Visiting Scientist at the Heriot-Watt University (Edinburgh) for the month of August.
- 1996-1997 Sabbatical year spent as Visiting Scientist at the Department of Theoretical Physics, University of Oxford.
- 1997 Visiting Scientist at the Physics Department, University of Sao Paulo, Brazil for the month of June.
- 1996 Visiting Scientist at the Departamento de Matematica, Universidad de Costa Rica (San Jos) for the month November.
- 1995 Visiting Scientist at the E. Schrödinger International Institute for Mathematical Physics, Vienna, Austria for the month of June.
- 1994 Visiting Scientist at the Syracuse University for the months of May-June and October.
- 1983 Visitor at the Indian Institute of Science, Bangalore, India for the fall semester.

Teaching and other didactic activities

1

- 2010 Lecturer of the class: *Quantum Field Theory*, for the first year undergraduate students in *Chemistry and Pharmaceutical Technologies*.
- 2010 Lecturer of the class: *Physics*, for the first year undergraduate students in *Chemistry and Pharmaceutical Technologies*.
- 2009 Monographic Course: Noncommutative Geometry Universitat de Barcelona
- 2008 Lecturer of the class: *Noncommutative Geometry* for the Ph.D. programme at University of Napoli
- 2008 Lecturer of the course: *Introduction to Modern Physics* for high school teachers
- 2006 Lecturer of the class: *Noncommutative Geometry* for the Ph.D. programme at University of Napoli Federico II
- 2006-2010 Lecturer of the class: *Quantum Mechanics*, (third year laurea)
- 2005-2008 Lecturer of the class: *Classical Field Theory*, (first year master degree).
- 2004-2006 Lecturer of the class: *Advanced Quantum Mechanics*, (first year master degree).
- 2004 Lecturer of the class: *Quantum Mechanics* for the Ph.D. programme at University of Salerno
- 2003-2004 Lecturer of the class: *Advanced Quantum Mechanics*, (first year master degree).
- 2002 Lecturer of the class: *Noncommutative Geometry* for the Ph.D. programme at University of Napoli Federico II and Heriot-Watt University, Edinburgh.
- 2001-present Associate Professor at the Università di Napoli *Federico II*
- 2001-2002 Lecturer of the class of *Istituzioni di Fisica Teorica (Quantum Mechanics)* fourth year laurea.
- 1991-2001 Researcher at the University of Napoli *Federico II*
- 1999-2001 Lecturer of the class of *Istituzioni di Fisica Teorica (Quantum Mechanics)* fourth year laurea.
- 1998-1999 Lecturer of the class *Fisica teorica (Theoretical Physics)* (modulo A).

¹Whenever not explicitly stated teaching activities are at the University of Napoli *Federico II*.

- 1998-1999 Lecturer of the problem solving class of *Istituzioni di Fisica Teorica (Quantum Mechanics)*.
- 1997-1998 Lecturer of the *problem solving class of Metodi Matematici della Fisica (Mathematical methods of Physics)*.
- 1996 Speaker at Colloqui di Fisica Moderna, Cicli Monografici di Aggiornamento per i Docenti delle Scuole Medie Superiori (Colloquia on modern physics, Monographyc lectures for teachers of High School) organized by the University of Napoli, with the lecture: *Simmetrie dello Spazio Tempo (Symmetries of space and time)*.
- 1995-present Speaker in various high schools of the greater Naples area with the seminar *Geografia del Tempo, Introduzione alla Relatività Ristretta (Geography of time, an introduction to special relativity)*, for high school students.
- 1995-1996 Lecturer of the *problem solving class of Metodi Matematici della Fisica (Mathematical methods of Physics)*.
- 1994-1995 Lecturer of the *problem solving class of the class of Fisica Generale I (General Physics)* for the students of mathematics.
- 1991-1994 Lecturer of the problem solving class of *Istituzioni di Fisica Teorica (Quantum Mechanics)*.
- 1987 Tutor at the 17th BUSSTPP (*British Universities Summer School in Theoretical Particle Physics*). Summer School for British first year graduate students.
- 1980-1985 Research and Teaching Assistant, Syracuse University. Recitation assistant for the classes of *General Physics, Physics for nonscience Major, Astronomy, laboratory of Physics*. In charge of the summer course of *Astronomy*.

Administrative work

- 2009-present Responsabile (Chairman) of the subdepartment *Physics of the Universe and Theoretical* of the Università di Napoli *Federico II*.
- 2009-Present Member of the Giunta (steering committee) of the Physics Degrees council (coordinating body for all undergraduate degrees in physics and astronomy).
- 2008-present Member of the faculty of the Ph.D. programme of the University of Napoli.
- 2007-present Advisor for the theoretical curriculum of the Laurea magistrale (master degree) of the Università di Napoli.

- 2005-2006 Local Person in charge of the National Grant (Progetto di Ricerca di Interesse Nazionale): SINTESI (Singolarità, Integrabilità, Simmetrie) funded for 50 KEuro.
- 2003-2006 Member of the Giunta (steering committee) of the faculty of Sciences.
- 2003-2004 Local Person in charge of the National Grant (Progetto di Ricerca di Interesse Nazionale): SINTESI (Singolarità, Integrabilità, Simmetrie) funded for 60 KEuro.
- 2003-Present Member of the Scientific Council of Ulisse, Website of Scientific Divulgation: <http://ulisse.sissa.it> .
- 2000-2002 Local Person in charge of the National Grant (Progetto di Ricerca di Interesse Nazionale): SINTESI (Singolarità, Integrabilità, Simmetrie) funded for 66 KEuro.
- 1999-2001 Member of the Giunta (steering committee) of the faculty of Sciences.
- 1998-2001 Member the Council for the Physics Degree Course as representative of the researchers.
- 1996-2001 Elected representative of the researchers in the council of the faculty of Sciences.

Organization of Conferences and Advisory Committees

- 2009 Organizer of workshop "*The Physics of the Spectral Action*", IHES, Paris, December 2009.
- 2008 Member of the International Advisory Committee of the Summer School *New Paths Towards Quantum Gravity*, Holbaek, Denmark.
- 2003 Chairman of the organizing committee del convegno *Spacetime and Fundamental Interactions: Quantum Aspects*, in honour of A.P. Balachandran, Vietri sul mare 26-31 maggio 2003.
- 2002 Organizer of the Meeting: *Problemi Attuali di Fisica Teorica*, IIASS E.R. Caianello, Vietri sul Mare Salerno,(Italy) 20-27 March 2002.
- 2000 Organizer of the *EuroConference on Brane new world and Non-Commutative Geometry*, 2 - 7 Ott. 2000 - Villa Gualino, Torino.
- 2000 Organizer of the Meeting: *Problemi Attuali di Fisica Teorica*, IIASS E.R. Caianello, Vietri sul Mare Salerno,(Italy) 14 Aprile - 20 Aprile.

- 2000-1999 Organizer of the EuroConference on *Non-Commutative Geometry And Hopf Algebras In Field Theory And Particle Physics*, 20 - 30 Sept. 1999 - Villa Gualino, Torino.
- 1999 Member of the International Advisory Committee del Minnowbrook Symposium *On Structure Of Space-Time*, Syracuse NY, May 28-31, 1999.
- 1998 Organizer of the workshop *Noncommutative Geometry and Fundamental Interactions II*, IIASS, Vietri sul mare.
- 1996 Organizer of the Seminario di Fisica Teorica *Geometria Noncommutativa*, IIASS, Vietri Sul Mare.
- 1995 Organizer del Meeting *Discretization Methods in Theoretical Physics*, IIASS, Vietri Sul Mare.
- 1991-1993 Organizer of the seminars of mathematical Physics (Napoli).
- 1990-1991 In charge of the Preprint service at the International Centre for Theoretical Physics.
- 1987-1988 Organizer of the theoretical Seminars (Rutherford Appleton Laboratory).
- 1988 Organizer of the meeting: *String Theory*, Cosener's House (Rutherford Laboratory).
- 1987 Organizer of the meeting: *Berry Phases and Topology*, Cosener's House (Rutherford Laboratory).

Doctoral Thesis Advised

(the actual thesis are always available on the ArXiv)

Candidate/Title	Year	Current Occupation
Salvatore Galluccio <i>Non-commutative Field Theory, Translational Invariant Products and Ultraviolet/Infrared Mixing</i> (coadvisor Patrizia Vitale)	2010	Waiting to discuss his thesis
Carmine del Mondo <i>PDM: Predator Data Mining, un Nuovo Approccio al Data Mining Unsupervised</i> (Ph. D. in informatics)	2009	System Manager
Alessandra Agostini <i>Fields and symmetries in kappa-Minkowski noncommutative spacetime,</i> (coadvisor Giovanni Amelino-Camelia)	2006	Senior Consultant, Deloitte Consulting spa
Alessandro Zampini <i>Applications of the Weyl-Wigner formalism to noncommutative geometry</i> (coadvisor Giuseppe Marmo)	2004	Postdoctoral Research Associate, University of Bonn

Master Thesis Advised

Candidate	Year	Current Occupation
Chiara Esposito (coadvisor Patrizia Vitale)	2008	Graduate student, University of Copenhagen
Bernardino Spisso	2007	Graduate student, University of Muenster
Luigi Parlato	2007	Science communicator Città della Scienza, Napoli
Dario Capasso	2006	Graduate Student, City College, New York NY
Salvatore Galluccio	2006	Graduate Student (finishing) University of Napoli
Alessandro Valentino	2004	Postdoctoral Associate, University of Goettingen
Alessandro Zampini	2001	Postdoctoral Research Associate, University of Bonn
Antonio Russo (coadvisor Giuseppe Marmo)	1994	Computer consultant

I have followed also five “laurea” (three year curriculum) thesis: (F. Baruffa, A. Garzilli, G. De Rosa, E. Passaro, A. Mezzacapo)

Doctoral Evaluations Committees

2008	Marco Valli,	Università di Roma <i>La Sapienza</i>	Committee Member
2008	Antonino Marcianò,	Università di Roma <i>La Sapienza</i>	Rapporteur and Committee Member
2007	Cosmo Lupo,	Università di Napoli <i>Federico II</i>	Committee Chairman
2007	Luca Forte,	Università di Napoli <i>Federico II</i>	Committee Chairman
2007	Raffaele Carlone,	Università di Napoli <i>Federico II</i>	Committee Chairman
2007	Ruben Coehn Cagli,	Università di Napoli <i>Federico II</i>	Committee Chairman
2006	Samuel Halliday,	Heriot-Watt University, Edinburgh	Rapporteur and Committee Member
2004	Nicola Rossano,	Università di Roma III	Rapporteur
2003	Fabrizio Canfora,	Università di Salerno	Committee Member
2003	Filippo Maimone,	Università di Salerno	Committee Member
2003	Elisabetta di Grezia,	Università di Napoli <i>Federico II</i>	Rapporteur
2001	Pierre Martinetti,	Université de Marseille	Rapporteur and Committee Member
1999	Awatif Belymam,	Universit de Casablanca.	Committee Member
1999	Jèsus Clemente-Gallardo,	Universidad de Zaragoza	Rapporteur and Committee Member
1999	Thomas Krajewski,	Université de Marseille	Rapporteur and Committee Member

Scientific Achievements

- Author of more than seventy articles on international journals. A complete and up to date list of my scientific publications can be obtained on the home page: <http://people.na.infn.it/lizzi> . A separate scientific curriculum details the main directions of my research. The list of papers follows at the end.
- Member of the Scientific Council of Ulisse (<http://ulisse.sissa.it>), popular science portal.
- Member of the Editorial Board of *Advances in Mathematical Physics*
- Referee for the following journals: *Classical and Quantum Gravity*, *Foundations of Science*, *Foundations of Physics*, *General Relativity and Gravitation*, *International Journal of Modern Physics*, *Journal of Geometry and Physics*, *Journal of High Energy Physics*, *Journal of Mathematical Physics*, *Journal*

of Physics A, Modern Physics Letters, Nuclear Physics, Physical Review, Physical Review Letters, Physics Letters, Sigma.

- Speaker in seminar and Conferences in various universities and research center in Italy, United States, Canada, Great Britain, Spain, India, Austria, Denmark, Costa Rica, France, Brazil, Portugal, Germany, Morocco, Lebanon, Ireland, Switzerland, Greece, the Czech Republic. A partial list follows

List of Publications

Preprints

- pp1 *Star-product in the presence of a monopole*, J.F. Cariñena, J.M. Gracia-Bondía, Fedele Lizzi, Giuseppe Marmo, Patrizia Vitale, arXiv:0912.2197.
- pp2 H. Grosse, F. Lizzi and H. Steinacker, *Matrix Models, Emergent Spacetime and Symmetry Breaking*, arXiv:1001.2706.
- pp3 *Noncommutative gauge theory and symmetry breaking in matrix models*, H. Grosse, F. Lizzi and H. Steinacker, arXiv:1001.2703.
- pp4 *Bosonic Spectral Action Induced from Anomaly Cancellation*, A. A. Andrianov and F. Lizzi, arXiv:1001.2036.

Papers on refereed journals

- a62 *Translation Invariance, Commutation Relations and Ultraviolet/Infrared Mixing*, S. Galluccio, F. Lizzi and P. Vitale, JHEP **0909** (2009) 054
- a61 *Twisted Noncommutative Field Theory with the Wick-Voros and Moyal Products*, S. Galluccio, F. Lizzi and P. Vitale, Phys. Rev. D **78**, 085007 (2008)
- a60 *Noncommutative Conformal Field Theory in the Twist-deformed context*, F. Lizzi and P. Vitale, Mod. Phys. Lett. A **23**, 3307 (2008)
- a59 *Twisting all the way: From Classical Mechanics to Quantum Fields*, P. Aschieri, F. Lizzi, P. Vitale Phys. Rev. **D77** (025037) 2008.

- a58 *Internal space for the noncommutative geometry standard model and string*, F. Lizzi, Int. J. Mod. Phys. A **22** (2007) 1317
- a57 *Noncommutative spacetime symmetries: Twist versus covariance*, J. M. Gracia-Bondia, F. Lizzi, F. Ruiz. Ruiz and P. Vitale, Phys. Rev. D **74** (2006) 025014
- a56 *Twisted conformal symmetry in noncommutative two-dimensional quantum field theory*, F. Lizzi, S. Vaidya and P. Vitale, Phys. Rev. D **73** (2006) 125020
- a55 *On the absence of continuous symmetries for noncommutative 3-spheres*, F. Lizzi, A. Stern and P. Vitale, J. Math. Phys. **46** (2005) 103516
- a54 *The beat of a fuzzy drum: Fuzzy Bessel functions for the disc*, F. Lizzi, P. Vitale and A. Zampini, JHEP **0509** (2005) 080
- a53 *Matrix quantum mechanics and soliton regularization of noncommutative field theory*, G. Landi, F. Lizzi and R. J. Szabo, Adv. Theor. Math. Phys. **8** (1) 2004
- a52 *From the fuzzy disc to edge currents in Chern-Simons theory*, Fedele Lizzi, Patrizia Vitale, Alessandro Zampini, Mod. Phys. Lett. **A18** (2381) 2003.
- a51 *A New Matrix Model for Noncommutative Field Theory* Giovanni Landi, Fedele Lizzi, Richard J. Szabo, Phys. Lett. **578B** (449) 2004.
- a50 *The Fuzzy Disc*, Fedele Lizzi, Patrizia Vitale, Alessandro Zampini, JHEP **0308:057** (2003) .
- a49 *Generalized Weyl Systems and Kappa Minkowski Space*, Alessandra Agostini, Fedele Lizzi, Alessandro Zampini, Mod. Phys. Lett. **A17** (2105) 2002.
- a48 *Cosmological Perturbations And Short Distance Physics From Noncommutative Geometry*, Fedele Lizzi, Gianpiero Mangano, Gennaro Miele, Marco Peloso, JHEP **0206:049** (2002) .
- a47 *Infinitely Many Star Products to Play With*, J.M. Gracia-Bondia, F. Lizzi, G. Marmo and P. Vitale, JHEP **0204:026** (2002) .
- a46 *Geometry of the Gauge Algebra in Noncommutative Yang-Mills Theory*, F. Lizzi, R.J. Szabo, A. Zampini, JHEP **0108:032** (2001) .
- a45 *Another Alternative to Compactification: Noncommutative Geometry and Randall-Sundrum Models*, F. Lizzi, G. Mangano and G. Miele, Mod. Phys. Lett. **A14** (181) 2001.

- a44 *From Large N Matrices To The Noncommutative Torus*, G. Landi, F. Lizzi, R.J. Szabo, *Comm. Math. Phys.* **217** (181) 2001.
- a43 *Noncommutative Geometry, Strings and Duality*, F. Lizzi, *Int. J. Mod. Phys.* **B14** (2383) 2000.
- a42 *Strings, Noncommutative Geometry and the Size of the Target Space*, Fedele Lizzi, *Int. J. Mod. Phys.* **A14** (1999) 4501.
- a41 *String Geometry and the Noncommutative Torus*, Giovanni Landi, Fedele Lizzi and Richard J. Szabo, *Comm. Math. Phys.* **206** (603) 1999.
- a40 *Noncommutative Geometry and Spacetime Gauge Symmetries of String Theory*, F. Lizzi and R.J. Szabo, *Chaos, Solitons and Fractals* **10** (445) 1999.
- a39 *Matrix Sigma Models for Multi D-Brane Dynamics*, F. Lizzi, N.E. Mavromatos and R.J. Szabo, *Mod. Phys. Lett.* **A13** (1998) 829.
- a38 *Electric Magnetic Duality in Noncommutative Geometry*, F. Lizzi and R.J. Szabo, *Phys. Lett.* **417B** (1998) 303.
- a37 *Duality Symmetries and Noncommutative Geometry of String Spacetimes*, F. Lizzi and R.J. Szabo, *Comm. Math. Phys.* **97** (1998) 667.
- a36 *Target Space Duality in Noncommutative Geometry*, F. Lizzi and R.J. Szabo, *Phys. Rev. Lett.* **79** (1997) 3581.
- a35 *Mirror Fermions in Noncommutative Geometry*, F. Lizzi, G. Mangano, G. Miele and G. Sparano, *Mod. Phys. Lett.* **A13** (1998) 231.
- a34 *A nonperturbative form of the spectral action principle in noncommutative geometry*, H. Figueroa, J.M. Gracia-Bondia, F. Lizzi and J.C. Varilly, *J. of Geometry and Physics* **26** (1998) 329-339.
- a33 *Quantum Phase Space from String Solitons*, F. Lizzi and N.E. Mavromatos, *Phys. Rev.* **D55** (1997) 7859.
- a32 *Fermion Hilbert Space and Fermion Doubling in the Noncommutative Geometry Approach to Gauge Theories*, F. Lizzi, G. Mangano, G. Miele and G. Sparano, *Phys. Rev.* **D55** (1997) 6357.
- a31 *Lattice Gauge Fields and Noncommutative Geometry*, A.P. Balachandran, G. Bimonte, E. Ercolessi, G. Landi, F. Lizzi, and P. Teotonio-Sobrinho, *J. of Geometry and Physics* **24** (1998) 353.

- a30 *Constraints on Unified Gauge Theories from Noncommutative Geometry*, F. Lizzi, G. Mangano, G. Miele and G. Sparano, *Mod. Phys. Lett.* **A11** (1996) 2561.
- a29 *Noncommutative Lattices and Their Continuum Limit*, G. Bimonte, E. Ercolessi, G. Landi, F. Lizzi, G. Sparano and P. Teotonio-Sobrinho, *J. of Geometry and Physics* **20** (1996) 329.
- a28 *Lattices and Their Continuum Limit*, G. Bimonte, E. Ercolessi, F. Lizzi, G. Landi, G. Sparano and P. Teotonio-Sobrinho, *J. of Geometry and Physics* **20** (1996) 318.
- a27 *Inflationary Cosmology from Noncommutative Geometry*, F. Lizzi, G. Mangano, G. Miele and G. Sparano, *Int. J. Mod. Phys.* **A11** (1996) 2907.
- a26 *Noncommutative Lattices as Finite Approximations*, A.P. Balachandran, G. Bimonte, E. Ercolessi, G. Landi, F. Lizzi, G. Sparano and P. Teotonio-Sobrinho, *J. of Geometry and Physics* **18** (1996) 163.
- a25 *The Zero Tension Limit of the Virasoro Algebra and the Central Extension*, F. Lizzi, *Mod. Phys. Lett.* **A9** (1994) 1465.
- a24 *Distances on a Lattice from Noncommutative Geometry*, G. Bimonte, F. Lizzi, and G. Sparano, *Phys. Lett.* **341B** (1994) 139.
- a23 *Eikonal Type Equations for Geometric Singularities in Field Theory*, F. Lizzi, G. Marmo, G. Sparano and A.M. Vinogradov, *J. of Geometry and Physics* **14** (1994) 211.
- a22 *Dynamical Aspects of Lie-Poisson Structures*, F. Lizzi, G. Marmo, G. Sparano and P. Vitale, *Mod. Phys. Lett.* **A8** (1993) 31.
- a21 *A Dynamical Model of the Behavior of Hadronic and Fundamental Strings at Finite Densities*, F. Lizzi, I Senda and R. R. Viswanathan, *Int. J. Mod. Phys.* **A7** (1992) 7787.
- a20 *The Nucleation Model of the Hagedorn Phase Transition*, F. Lizzi and I. Senda, *Nucl. Phys.* **B359** (1991) 441.
- a19 *A Model of Interacting Strings and the Hagedorn Phase Transition*, F. Lizzi and I. Senda, *Phys. Lett.* **244B** (1990) 27.
- a18 *Total Interaction Rate of Highly Excited Strings*, F. Lizzi and I. Senda, *Phys. Lett.* **246B** (1990) 385.

- a17 *Statistical Mechanics of Null Strings*, F. Lizzi and G. Sparano, Phys. Lett. **232B** (1989) 311.
- a16 *The Space of String Configurations in String Field Theory*, J. Bordes and F. Lizzi, Int. J. Mod. Phys. **A5** (1990) 1911.
- a15 *Vertices in the Discretized Approach to String Field Theory*, J. Bordes and F. Lizzi, Nucl. Phys. **B319** (1989) 211.
- a14 *String Fields as Limit of Functions and Surface Terms in String Field Theory*, J. Bordes and F. Lizzi, Int. J. Mod. Phys. **A4** (1989) 451.
- a13 *Computation of Amplitudes in the Discretized Approach to String Field Theory*, J. Bordes and F. Lizzi, Phys. Rev. Lett. **61** (1988) 278.
- a12 *Space Dimension from Supersymmetry for the $N = 2$ Spinning String; a Four-Dimensional Model*, A. D'Adda and F. Lizzi, Phys. Lett. **191B** (1987) 1985.
- a11 *Topological Aspects of String Theories*, A.P. Balachandran, F. Lizzi, R.D. Sorokin and G. Sparano, Nucl. Phys. **B287** (1987) 508.
- a10 *Quantization of the Null String and Absence of Critical Dimensions*, F. Lizzi, G. Sparano, A. Srivastava and B. Rai, Phys. Lett. **182B** (1986) 326.
- a9 *A New Approach to String Theories*, A.P. Balachandran, F. Lizzi and G. Sparano, Nucl. Phys. **B277** (1986) 359.
- a8 *θ -Vacua, Fermions from Bosons and Wess-Zumino Terms in String Theories*, A.P. Balachandran, F. Lizzi and G. Sparano, Nucl. Phys. **B263** (1986) 608.
- a7 *Dibaryons as Chiral Solitons*, A.P. Balachandran, F. Lizzi, V.G.J. Rodgers and A. Stern, Nucl. Phys. **B256** (1985) 525.
- a6 *Linearly Rising Regge Trajectory and Bag and String Models for Hadrons*, Fedele Lizzi and Carl Rosenzweig, Phys. Rev. **D31** (1985) 1685.
- a5 *Multibaryons in the Skyrme and Quark Models*, Harald Gomm, Fedele Lizzi and Giovanni Sparano, Phys. Rev. **D31** (1985) 226.
- a4 *A Doubly Strange Dibaryon in the Chiral Model*, A.P. Balachandran, A. Barducci, F. Lizzi, V.G.J. Rodgers and A. Stern, Phys. Rev. Lett. **52** (1984) 887.

- a3 *Topological Symmetry Breakdown in Cholesterics, Nematics and ^3He* , A.P. Balachandran, F. Lizzi and V.G.J. Rodgers, Phys. Rev. Lett. **52** (1984) 1818.
- a2 *Self Adjointness of the Dirac Hamiltonian in Point Instanton and Meron Fields*, F. Lizzi and V.G.J. Rodgers Phys. Rev. **D30** (1984) 442.
- a1 *Confinement of non Abelian Monopoles by MIT Bag*, Fedele Lizzi, Phys. Rev. **D30** (1984) 2972.

Edition of conference proceeding

- p3 *Spacetime and fundamental interactions: Quantum aspects (In honor of A.P. Balachandran's 65th Birthday), Vietri on the Sea, Salerno, Italy, 26-31 May 2003* F. Lizzi, G. Marmo, G. Sparano and G. Vilasi, Mod. Phys. Lett. **A18** (2003) 2303.
- p2 *Brane New World and Noncommutative Geometry. Proceedings, EuroConference, Turin, Italy, October 2-7, 2000*, L. Castellani, G. Landi, F. Lizzi, (eds.), Mod. Phys. Lett. **A16** (163) 2000.
- p1 *Non-Commutative Geometry And Hopf Algebras In Field Theory And Particle Physics. Proceedings, EuroConference, Turin, Italy, September 20-30, 1999.*, L. Castellani, G. Landi, F. Lizzi, (eds.), Int. J. Mod. Phys. **B14** (2287-2509) 2000.

Books

- b1 *Noncommutative spaces*, P. Aschieri, M. Dimitrievic, P. Kulish, F. Lizzi and J. Wess, Lect. Notes Phys. **774** (2009) 89, Springer eds.

Conference proceeding

- c13 *Monopole-based quantization: a programme*, J.F. Carinena, J.M. Gracia-Bondia, Fedele Lizzi, Giuseppe Marmo, Patrizia Vitale, in *Mathematical Physics and Field Theory, Julio Abad, in memoriam*, Eds M. Asorey, J.V. García Esteve, M. Rañada and J. Sesma, Prensa Universitaria de Zaragoza, 2009.

- c12 *The Structure of Spacetime and Noncommutative Geometry*, F. Lizzi, Proceedings of the Workshop on Geometry, Topology, QFT and Cosmology, Paris, France, 28-30 May 2008., J. Kounehier et al. eds. Editions Hermann
- c11 *The Fuzzy Disc: A Review*, F. Lizzi, P. Vitale and A. Zampini, Proceedings of the 8th Hellenic School on Elementary Particle Physics (CORFU2005), Corfù, Greece, 4-26 Sep 2005 J. Phys. Conf. Ser. **53** (2006) 830.
- c10 *Fuzzy two-dimensional spaces*, F. Lizzi, Proceedings Euresco Conference on What Comes Beyond the Standard Model? Symmetries Beyond the Standard Model, Portoroz, Slovenia, 12-17 Jul 2003. N. Mankoc Borstnik, H. B. Nielsen, C. D. Froggatt, D. Lukman. Ljubljana, DMFA, 2003.
- c9 *Noncommutative geometry of strings and duality*, F. Lizzi, Lect. Notes Phys. **596** (2002) 325. Proceedings Workshop on the Standard Model of Elementary Particle Physics from the Mathematical-Geometrical Point-of-view, Hesselberg, Germany, 14-19 Mar 1999.
- c8 *Noncommutative Geometry in Physics, A Point of View*, F. Lizzi, Nucl. Phys. Proc. Supp. **104** (143) 2002. Proceedings of the International Meeting on Quantum Gravity and Spectral Geometry, Naples, Italy, 2-6 Jul 2001.
- c7 *Noncommutative Geometry And String Duality*, F. Lizzi and R.J. Szabo, Preprint Napoli DSF-13-99, [hep-th/9904064](#), Proceedings del Corfu Summer Institute on Elementary Particle Physics, J. of High Energy Physics PRHEP-corfu98/073.
- c6 *Projective Systems of Noncommutative Lattice as a Pregeometric Substratum*, Giovanni Landi and Fedele Lizzi, [math-ph/9810011](#), in ‘*Quantum Groups and Fundamental Physical Applications*’, ISI Guccia, Palermo, December 1997, D. Kastler and M. Rosso Eds., (Nova Science Publishers, USA).
- c5 *Finite Quantum Physics and Noncommutative Geometry*, A.P. Balachandran, G. Bimonte, E. Ercolessi, F. Lizzi, G. Landi, P. Teotonio-Sobrinho and G. Sparano, Nucl. Phys. **37C** (1995) 20.
- c4 *Phase Transition in the String Model*, F. Lizzi and I. Senda, in Proceedings of the 1990 Trieste Workshop on High Energy Physics., K. Narain *et al.* eds. World Scientific (Singapore) 1991.

c3 *θ -Vacuum, Fermions from Bosons and Wess-Zumino Terms in String Theories*, A.P. Balachandran, F. Lizzi and G. Sparano, in Seoul 1985, Proceedings of the Group Theoretical Methods in Physics, Y.M. Cho Ed. World Scientific.

c2 *Dibaryons in the Skyrme Model*, Fedele Lizzi, Proceedings of the Workshop on Solitons in Nuclear and Particle Physics, Lewes 1984, A. Chodos et al. eds., (World Scientific (Singapore) 1984).

c1 *Skyrme Solitons in the Chiral Model*, Fedele Lizzi, Proceedings of the Fifth MRST Meeting, Syracuse 1984.

Thesis and other unpublished material

u3 *The Theory and phenomenology of the Skyrme Model*, F. Lizzi, Ph. D. Thesis, Syracuse University.

u2 *Symmetry Reduction in the Presence of Non-abelian Monopoles*, F. Lizzi, V.P. Nair and V.G.J. Rodgers Syracuse University Preprint Su-422-269.

u1 *Formalizzazione Geometrico-Differenziale di Alcuni Problemi di Elettromagnetismo*, Fedele Lizzi and Giuseppe d'Angelo, Tesi di Laurea in Fisica, Università di Napoli 1979.

Popular Science

d1 *La Fisica che non viene al Punto*, essay published on line on the popular science portal: ulisse.sissa.it.

Seminars and Talks at Conferences

- . Max Planck Institute fur Mathematics, Bonn, January 2010
- . Conference Noncommutative Geometry : Topics in Mathematics and Mathematical Physics, Laboratoire de Physique Théorique d'Orsay, Paris, November 2009.
- . Conference XXV Max Born Symposium. The Panck Scale Wroclaw 2009
- . Conference Geometry and Physics 7 Chengdu 2009 (note, the Conference was interrupted before my talk because all participants were quarantined for swine flu)
- . King's College London 2009

- . Conference Noncommutativity and physics: Quantum Geometries and Gravity Bayrischzell 2009
- . Conference Problemi Attuali di Fisica Teorica Vietri 2009
- . Universitat de Barcelona Dicembre 2008
- . Universidad de Zaragoza Novembre 2008
- . Universita' del Piemonte Orientale Luglio 2008
- . Quantum Spacetime and Noncommutative Geometry Roma Settembre 2008
- . Universita' del Piemonte Orientale Luglio 2008
- . Quantum Gravity and Quantum Geometry Nottingham Giugno 2008
- . Geometry, Topology, Qft and Cosmology Observatoire de Paris Maggio 2008
- . ESF Workshop on Noncommutative Field Theory Vienna Novembre 2007
- . Workshop on Field Theory Noncommutative Geometry and Strings Zagreb Novembre 2007
- . Bayrischzell Workshop on Noncommutativity and Physics Bayrischzell Marzo 2007
- . Meeting of the Progetto di Ricerca di Interesse Nazionale Sintesi Vietri Marzo 2006
- . Conference "Noncommutative Geometry and Quantum Physics" Kolkata January 2006
- . "ABC-KLM. Tenth Network Meeting" Warwick May 2005
- . Conference "Geometry and Physics of Particles and Fields" Zaragoza May 2004
- . Conference "Recent advances in noncommutative geometry: spheres, instantons, sigma models" Firenze 29-31 march 2004
- . Convegno Nazionale Prin Sintesi, Vietri gennaio 2004
- . "Circumnavigating Theoretical Physics", Oxford 2004
- . Lecce Novembre 2003
- . Seminario "Jet Neustrev", Santo Stefano del Sole, (AV) Luglio 2003 Conference Spacetime and Fundamental Interactions: Quantum Aspects in onore di A.P. Balachandran, Vietri sul mare maggio 2003
- . Dublin City University (Dublin) Marzo 2003
- . Dublin Institute of Advanced Studies, Marzo 2003
- . Convegno Nazionale Prin Sintesi, Perugia gennaio 2003
- . Noncommutative Geometry and quantum Field Theory, Chennai (India) gennaio 2003
- . Univ. di Lecce Ottobre 2002
- . Convegno Nazionale Prin Sintesi, Trieste Febbraio 2003
- . Conference sulla geometria delle equazioni differenziali, Vietri sul mare settembre 2002

- . Marsiglia, ottobre 2001
- . E.S.I. (Vienna) Settembre 2001
- . Convegno informale di Fisica Teorica, Cortona (giugno 2001)
- . Universita' di Perugia, (Maggio 2001)
- . Problemi Attuali di Fisica Teorica, Vietri sul Mare. (maggio 2001).
- . Universita' di Pisa, Novembre 2000.
- . Workshop on String Theory and Non-Commutative Geometry, Beirut, Libano, Giugno 2000.
- . EuroConference on Non-Commutative Geometry And Hopf Algebras In Field Theory And Particle Physics, 20 - 30 Sept. 1999 - Villa Gualino, Torino.
- . Ecole d'et de Hautes Energies, Sefi (Marocco) (Giugno 1999).
- . Problemi Attuali di Fisica Teorica, Vietri sul Mare. (Aprile 1999).
- . Arbeitstagung On the Standard Model of Elementary Particles, mathematical and Geometrical Aspects, Hesselberg, Germania (Marzo 1999).
- . Sixth Hellenic School & Workshops on Elementary Particle Physics, Corfù, Grecia (Settembre 1998).
- . Università di Firenze (Maggio 1998).
- . Problemi Attuali di Fisica Teorica, Vietri sul Mare (Aprile 1998).
- . Conference on Recent Results In Noncommutative Geometry, Lisbona (Settembre 1997).
- . IFT, Universidade Estadual Paulista, Brasile (Giugno 1997)
- . Univerdade de Sao Paulo, Brasile (Giugno 1997).
- . Trinity College Dublin (Maggio 1997).
- . Università di Torino (Marzo 1997)
- . Università di Genova (Marzo 1997).
- . First Workshop on Noncommutative Geometry and Fundamental Interactions, Marsiglia (Marzo 1997).
- . Syracuse University (Novembre 1996).
- . Universidad de Costa Rica (San Jos) (Novembre 1996).
- . Universidad de Costa Rica (San Ramon) (Novembre 1996).
- . Problemi Attuali di Fisica Teorica, Vietri sul Mare (Aprile 1996).
- . ICTP Trieste (Maggio 1995).
- . Universidad Autonoma de Madrid (Febbraio 1995).
- . Università di Salerno, (Marzo 1994).
- . E. Schrödinger Institute (Maggio 1993).

- . Spring Workshop on String Theory, Trieste (Aprile 1991).
- . Università di Salerno (Ottobre 1990).
- . Rutherford Laboratory (Luglio 1990).
- . Università di Perugia (Maggio 1990).
- . Università di Torino (Maggio 1990).
- . Spring Workshop on String Theory, Trieste (Aprile 1990).
- . International Centre for Theoretical Physics (Marzo 1990).
- . Universidad de Santiago de Compostela (Aprile 1989).
- . Rutherford Laboratory (Marzo 1989).
- . Ninth UK Summer Institute for Theoretical High Energy Physicists, St. Andrews (Aug 1988).
- . University of Rochester (Maggio 1988).
- . Syracuse University (Maggio 1988).
- . University of Delaware (Aprile 1988).
- . Edinburgh University (Gennaio 1988).
- . Southampton University (Dicembre 1987).
- . University of Torino (Aprile 1987).
- . Trieste Workshop on String and Superstrings (Aprile 1987). University College (London) (Marzo 1987).
- . King's College (London) (Settembre 1986).
- . Nordita (Luglio 1986).
- . Oxford University (Febbraio 1986).
- . Università di Napoli (Novembre 1984).
- . Centre for Theoretical Studies, Indian Institute of Science Bangalore (Sept.1984).
- . Workshop on Solitons in Nuclear and Particle Physics, Lewes, Delaware (Giugno 1984).
- . Fifth Montreal-Rochester-Syracuse-Toronto Conference, Syracuse, N.Y. (Maggio 1984).
- . Università di Napoli (Ottobre 1983).