

Daniele Guido - CURRICULUM

1. Posizione accademica: professore ordinario

a) settore concorsuale: 01/A3 settore scientifico-disciplinare MAT/05

b) anzianità in ruolo: dal 1 Novembre 2004.

c) sede universitaria e dipartimento: Università di Roma Tor Vergata, Dipartimento di Matematica

d) posizioni ricoperte precedentemente nel medesimo ateneo o in altri:

Dall'8 marzo 1989 al 31 ottobre 1998: Ricercatore universitario presso l'università di Roma Tor Vergata;

Dal 1 novembre 1998 al 31 ottobre 2001 professore associato presso l'università della Basilicata

Dal 1 novembre 2001 al 31 ottobre 2004 professore associato presso l'università di Roma Tor Vergata.

2. Pubblicazioni scientifiche:

1. Doplicher S., Figliolini F., Guido D., "Infrared representations of the free Bose fields", Ann. Inst. H. Poincaré Phys. Théor., **41** (1984), 49-62.
2. Figliolini F., Guido D., "The Tomita operator for the free scalar field", Ann. Inst. H. Poincaré Phys. Théor., **51** (1989), 419-435.
3. Guido D., Longo R., "Relativistic Invariance and Charge Conjugation in Quantum Field Theory", Commun. Math. Phys., **148** (1992), 521-555.
4. Albeverio S., Guido D., Ponomov A., Scarlatti S., "Dixmier traces and non standard analysis", Proceedings of the III International Conference "Stochastic Processes: Physics and Geometry", Locarno June 1991, Edts. S. Albeverio, D. Merlini, World Scientific, Singapore (1993).
5. Albeverio S., Guido D., Ponomov A., Scarlatti S., "Non standard representation of non normal traces", Dynamics of complex and irregular systems (Bielefeld, 1991), 1--11, Edts. Ph. Blanchard, L. Streit, D. Testard, Bielefeld Encount. Math. Phys., VIII, World Sci. Publishing, River Edge, NJ, 1993.
6. Brunetti R., Guido D., Longo R., "Modular structure and duality in conformal quantum field theory", Commun. Math. Phys., **156**, (1993), 201-219.
7. Figliolini F., Guido D., "On the type of second quantization factors", Journal of Operator Theory, **31** (1994), 229-252.
8. Albeverio S., Guido D., Ponomov A., Scarlatti S., "Singular traces and nonstandard analysis." Advances in analysis, probability and mathematical physics (Blaubeuren, 1992), 3--19, Edts. S. Albeverio, W. A. J. Luxemburg, M. Wolff, Math. Appl., 314, Kluwer Acad. Publ., Dordrecht, 1995.
9. Brunetti R., Guido D., Longo R., "Group cohomology, modular theory and space-time symmetries", Rev. Math. Phys., **7** (1995), 57-71.
10. Guido D., Isola T., "Singular traces on semifinite von Neumann algebras" Journ. Funct. Analysis, **134** (1995), 451-485.
11. Guido D., Longo R., "An algebraic spin and statistics theorem", Commun. Math. Phys., **172** (1995), 517-533.

12. Guido D., "Modular Covariance, PCT and Spin and Statistics", Ann. Inst. H. Poincaré Phys. Théor., **63** (1995), 383-398.
13. Albeverio S., Guido D., Ponomosov A., Scarlatti S., "Singular traces and compact operators", Journ. Funct. Analysis, **137** (1996), 281-302.
14. Guido D., Isola T., Scarlatti S., "Non-symmetric Dirichlet forms on semifinite von Neumann algebras" Journ. Funct. Analysis, **135** (1996), 50-75.
15. Cipriani F., Guido D., Scarlatti S., "A remark on trace properties of K-cycles", Journal of Operator Theory, **35** (1996), 179-189.
16. Guido D., Longo R., "The conformal spin and statistics theorem", Commun. Math. Phys., **181** (1996), 11-35.
17. Guido D., Isola T., "Singular traces and their applications to geometry" in Proceedings of the Conference "Operator Algebras and Quantum Field Theory", S. Doplicher, R. Longo, J.E. Roberts and L. Zsidó Eds, International Press, 1997.
18. Guido D., Longo R., Wiesbrock H.-W., "Extensions of Conformal Nets and Superselection Structures", Commun. Math. Phys., **192** (1998), 217-244.
19. Figliolini F., Guido D., "Inclusions of second quantization algebras", in "Stochastic Processes, Physics and Geometry: New Interplays. II: A Volume in Honor of Sergio Albeverio", F. Gesztesy, H. Holden, J. Jost, S. Paycha, M. Röckner, S. Scarlatti Editors, CMS Conference Proceedings, **29**. Providence, RI, 2000.
20. Guido D., Isola T., "Singular traces, dimensions, and Novikov-Shubin invariants", in Operator Theoretical Methods, Proceedings of the 17th Conference on Operator Theory Timisoara (Romania) June 23-26, 1998, A. Gheondea, R.N. Gologan, D. Timotin Editors, The Theta Foundation, Bucharest 2000.
21. Daniele Guido, Tomaso Isola, "Noncommutative Riemann Integration and Novikov-Shubin Invariants for Open Manifolds", Journ. Funct. Analysis, **176**, No. 1, (2000), 115-152
22. Guido D., Longo R., Roberts J., Verch R., "Charged sectors, spin and statistics in quantum field theory on curved space-times", Rev. Math. Phys. **Vol. 13, No. 2**, (2001) 125-198
23. Guido D., Longo R., "Natural Energy Bounds in Quantum Thermodynamics", Comm. Math. Phys. **218** (2001) 513-536
24. Daniele Guido, Lars Tuset, "Representations of Direct Product of Matrix Algebras", Fund. Math. **169** (2001) no. 2, 145-160.
25. Guido D., Isola T., "An asymptotic dimension for metric spaces, and the 0-th Novikov-Shubin invariant", Pacific J. Math. **204**, (2002) 43-59
26. Guido D., Isola T., "A semicontinuous trace for almost local operators on an open manifold", International Journal of Mathematics **12**, (2001) 1087-1102
27. Guido D., Isola T., "Fractals in Noncommutative Geometry", in the Proceedings of the Conference "Mathematical Physics in Mathematics and Physics", Siena 2000, Edited by: Roberto Longo, University of Rome II, Italy, Fields Institute Communications, Vol. **30** American Mathematical Society, Providence, RI, 2001
28. Brunetti R, Guido D., Longo R., "Modular localization and Wigner particles", Rev. Math. Phys. **14**, (2002) 759-785
29. Guido D., Isola T., "On the domain of singular traces", International Journal of Mathematics **13**, (2002) 667-674

30. Guido D., Isola T., "Dimensions and singular traces for spectral triples, with applications to fractals", *Journ. Funct. Analysis*, **203**, 2 (2003) 362-400
31. Guido D., Longo R., "A Converse Hawking-Unruh Effect and dS^2/CFT Correspondence", *Annales Henri Poincaré*, **4** (2003), no. 6, 1169-1218
32. Guido D., Isola T., "Dimensions and spectral triples for fractals in \mathbf{R}^n ", in "Advances in Operator Algebras and Mathematical Physics", Proceedings of the Conference held in Sinaia, Romania, June 2003, F. Boca, O. Bratteli, R. Longo H. Siedentop Eds., Theta Series in Advanced Mathematics, Bucharest 2005.
33. Guido D., Isola T., "Tangential dimensions I. Metric spaces", *Houston Journal Math.*, **31** (2005) no. 4, 1023-1045.
34. Guido D., Isola T., "Tangential dimensions II. Measures", *Houston Journal Math.*, **32** (2006) no. 2, 423 - 444.
35. Guido D., Isola T., "The problem of completeness for Gromov-Hausdorff metrics on C^* -algebras", *Journal of Functional Analysis*, **233** (2006) no. 1, 173-205.
36. Guido D., Isola T., Lapidus M.L. "Ihara zeta functions for periodic simple graphs", in *C^* -algebras and elliptic theory II* - papers from the International Conference held in Bedlewo, January 2006, 103 - 121. Edited by Burghilea, D.; Melrose, R.; Mishchenko, A.; Troitsky, E. *Trends in Mathematics*, Birkhäuser Verlag, Basel, 2008.
37. Cipriani, Fabio; Guido, Daniele; Isola, Tommaso "A C^* -algebra of geometric operators on self-similar CW-complexes. Novikov-Shubin and L^2 -Betti numbers", *J. Funct. Anal.*, **256** (2009) no. 3, 603-634.
38. Guido D., Isola T., Lapidus M.L. "A trace on fractal graphs and the Ihara zeta function", *Trans. Amer. Math. Soc.*, **361** (2009), no. 6, 3041-3070.
39. Guido, Daniele; Isola, Tommaso; Lapidus, Michel L. "Ihara's zeta function for periodic graphs and its approximation in the amenable case", *J. Funct. Anal.* **255** (2008) no. 6, 1339-1361.
40. Guido, Daniele; Isola, Tommaso; Lapidus, Michel L. "Bartholdi Zeta Functions for Periodic Simple Graphs" in *Analysis on Graphs and its Applications*, pp.109-122. P. Exner, J.P. Keating, P. Kuchment, T. Sunada, A. Teplyaev Eds., *Proc. Sympos. Pure Math.*, vol. 77, Amer. Math. Soc., Providence, RI, 2008.
41. Fidaleo, Francesco; Guido, Daniele; Isola, Tommaso "Bose-Einstein condensation on inhomogeneous amenable graphs", *Infinite Dimensional Analysis, Quantum Probability and Related Topics* **14** (2011) no. 2, 149-197.
42. Guido, Daniele "Modular theory for the von Neumann algebras of Local Quantum Physics". In "Aspects of operator algebras and applications", P.Ara, F.Lledó, F.Perera, Eds., 97 - 120. *Contemp. Math.* **534**, Amer. Math. Soc., Providence, RI, 2011.
43. Cipriani, Fabio; Guido, Daniele; Isola, Tommaso; Sauvageot, Jean-Luc "Integrals and Potentials of Differential 1-forms on the Sierpinski Gasket", *Advances in Mathematics*, **239** (2013), 128-163.
44. Cipriani, Fabio; Guido, Daniele; Isola, Tommaso; Sauvageot, Jean-Luc "Spectral triples for the Sierpinski Gasket", *J. Funct. Anal.*, **266** (2014) 4809-4869.
45. Guido, Daniele; Isola, Tommaso "Zeta functions for infinite graphs and functional equations", in "Fractal Geometry and Dynamical Systems in Pure and Applied Mathematics II: Fractals in Applied Mathematics", Carfi, Lapidus, Pearse, van

Frankenhuijsen Eds., Contemporary Mathematics, vol. 601. Amer. Math. Soc., Providence, RI, 2013, pp. 123-146.

3. Titoli:

2011/2014. coordinatore globale del progetto Franco-Italiano GREFI-GENCO in Geometria Non Commutativa, finanziato da CNRS e INdAM

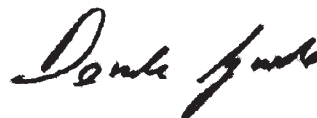
2007/2010. coordinatore italiano del progetto Franco-Italiano GREFI-GENCO in Geometria Non Commutativa, finanziato da CNRS e INdAM

2006 Coordinatore del progetto nazionale "Geometria non commutativa e fisica quantistica" finanziato da INdAM-GNAMPA

2005 Coordinatore del progetto nazionale "Algebre di operatori, teoria quantistica dei campi e geometria non commutativa" finanziato da INdAM-GNAMPA

2002 Coordinatore del progetto nazionale "Algebre di operatori, teoria quantistica dei campi e geometria non commutativa" finanziato da INdAM-GNAMPA

1999/2001 Coordinatore scientifico dell'unità di ricerca presso l'Università della Basilicata per il progetto di ricerca nazionale "Operator Algebras, Quantum Field Theory and Noncommutative Geometry" finanziato dal MIUR.



Data 16 dicembre 2014

Il Dichiarante