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Professor of Mathematical Analysis at the Università di Milano-Bicocca.

Born: July 8, 1953, Milano, Italy

Fields of interest:
Fourier Analysis,
Geometric Discrepancy,
Mathematics Education.

Recent courses at Milano-Bicocca:
Calculus I (undergraduate),
Calculus II (undergraduate),
Elementary Mathematics (graduate),
Harmonic Analysis (Ph.D. degree).

Selected professional duties:
Deputy Director of the Department of Mathematics and Applications (2001-2002);
Director of the undergraduate and graduate studies in Mathematics (2002-2006);
Deputy Director of the Department of Statistics (2011-2012);
Director of the undergraduate and graduate studies in Statistics and Biostatistics (2012-2015);
Deputy Director of the undergraduate and graduate studies in Mathematics (2021-2023).

Conferences organized:
Varenna (2016), Workshop in Discrepancy Theory,
Varenna (2007), Workshop on Discrepancy Theory and Related Areas,
Milano (2001), Workshop on Fourier Analysis and Convexity,
Como (2000), Convegno nazionale di Analisi Armonica,
Torino (1993), Convegno nazionale di Analisi Armonica.

Publications

books

1. G. Travaglini, "Numbers and Figures: Six Math Conversations Starting from Scratch", American Mathematical Society (2023).
2. M. Bramanti, G. Travaglini, "Studying Mathematics: The Beauty, the Toil and the Method", Springer (2018).
3. G. Travaglini, "Number theory, Fourier analysis and Geometric discrepancy", Cambridge University Press (2014).
4. W. Chen, A. Srivastav, G. Travaglini (Editors), "Panorama of Discrepancy Theory", Springer (2014).
5. G. Travaglini, "Appunti su Teoria dei numeri, Analisi di Fourier e Distribuzione di punti", Unione Matematica Italiana - Pitagora (2010).
6. M. Bramanti, G. Travaglini, "Matematica. Questione di metodo", Zanichelli (2009).
7. L. Brandolini, L. Colzani, A. Iosevich, G. Travaglini (Editors), "Fourier Analysis and convexity", Applied and Numerical Harmonic Analysis, Birkhäuser (2004).
8. M. Andreini, G. Travaglini, "Un'introduzione allo studio della Matematica nell'Università", CUSL (1985).
9. M. Mauri, G. Travaglini, "Analisi Matematica I, Temi d' esame svolti", CUSL (1985).

papers

1. L. Brandolini, L. Colzani, G. Travaglini, *Irregularities of distribution and Fourier transforms of multi-dimensional convex bodies*, preprint.
2. G. Travaglini, *Terne Pitagoriche*, preprint.
3. L. Brandolini, L. Colzani, G. Travaglini, *Discrepancy and approximation of absolutely continuous measures with atomic measures*, J. Geom. Anal. 35 (2025), no. 3, Paper No. 97.
4. G. Travaglini, *Gerrymandering,* Emmeciquadro **86** (2024)**.**
5. L. Brandolini, L. Colzani, G. Travaglini, *Irregularities of distribution for bounded sets and half-spaces*, Mathematika **69** (2023), 68–89.
6. G. Travaglini, *Il Problema delle Monete*, Archimede **3** (2022), 141–148.
7. L. Brandolini, G. Travaglini, *Irregularities of distribution and geometry of planar convex sets.* Adv. Math. **396** (2022) 108162.
8. L. Brandolini, L. Colzani, S. Robins, G. Travaglini, *An Euler-Maclaurin formula for polygonal sums,* Trans. Amer. Math. Soc. **375** (2022), 151–172.
9. M. Barbieri, L. Brandolini, G. Travaglini, *Euclide e la preparazione agli studi universitari,* Emmeciquadro **79** (2021).
10. G. Travaglini, *Numeri e Figure,* Emmeciquadro **79** (2021).
11. L. Brandolini, L. Colzani, S. Robins, G. Travaglini, *Convergence of multiple Fourier series and Pick's theorem,* Amer. Math. Monthly **5128** (2021), 41-49.
12. L. Brandolini, G. Travaglini, *Fourier analytic techniques for lattice point discrepancy,* in "Discrepancy Theory" (D. Bilyk, J. Dick, F. Pillichshammer Editors), De Gruyter (2020), 173–216.

13. L. Brandolini, L. Colzani, B. Gariboldi, G. Gigante, G. Travaglini, *Discrepancy for convex bodies with isolated flat points,* Rev. Mat. Iberoam. **36** (2020), 1597–1626.

14. G. Travaglini, *Il paradosso di Simpson*, Emmeciquadro **71** (2019).

15. L. Brandolini, W. Chen, L. Colzani, G. Gigante, G. Travaglini, *Discrepancy and numerical integration in generalized Sobolev spaces on metric measure spaces*, J. Geom. Anal. **29** (2019), 328–369.

16. L. Brandolini, L. Colzani, G. Gigante, G. Travaglini, *Low-Discrepancy Sequences for Piecewise Smooth Functions on the Torus*, in "Contemporary Computational Mathematics - A Celebration of the 80th Birthday of Ian Sloan" (J. Dick, F. Kuo, H. Wozniakowski Editors), Springer (2018), 135–152.

17. L. Brandolini, L. Colzani, G. Gigante, G. Travaglini, *Low-discrepancy sequences for piecewise smooth functions on the two-dimensional torus*, J. Complexity, **33** (2016), 1–13.

18. G. Travaglini, M.R. Tupputi, *A characterization theorem for the L^2-discrepancy of integer points in dilated polygons*, J. Fourier Anal. Appl., **22** (2016), 675–693.

19. L. Brandolini, L. Colzani, G. Gigante, G. Travaglini, *L^p and* Weak-L^p *estimates for the number of integer points in translated domains,* Math. Proc. Cambridge Philos. Soc., **159** (2015), 471-480.

20. L. Brandolini, C. Choirat, L. Colzani, G. Gigante, R. Seri, G. Travaglini, *Quadrature rules and distribution of points on manifolds,* Ann. Sc. Norm. Super. Pisa Cl. Sci. **XIII**, (2014), 889–923.

21. L. Brandolini, G. Gigante, G. Travaglini, *Irregularites of distribution and average decay of Fourier transforms,* in "Panorama of Discrepancy Theory" (W. Chen, A. Srivastav, G. Travaglini Editors), Springer (2014), 159–220.

22. L. Brandolini, L. Colzani, G. Gigante, G. Travaglini, *A Koksma-Hlawka inequality for simplices*, in "Trends in Harmonic Analysis", Springer (2013), 33–46.

23. L. Brandolini, L. Colzani, G. Gigante, G. Travaglini, *On the Koksma-Hlawka inequality,* J. Complexity **29** (2013), 158–172.

24. L. Brandolini, G. Travaglini, *La legge di Benford*, Emmeciquadro **45** (2012).

25. W. Chen, G. Travaglini, *An L^1 estimate for the half-space discrepancy*, Acta Arith. **146** (2011), 203–214.

26. L. Colzani, G. Gigante, G. Travaglini, *Trigonometric approximation and a general form of the Erdős-Turan inequality*, Trans. Amer. Math. Soc. **363** (2011), 1101–1123.

27. L. Brandolini, G. Gigante, S. Thangavelu, G. Travaglini, *Convolution operators defined by singular measures on the motion group*, Indiana Univ. Math. J., **59** (2010), 1935–1945.

28. L. Brandolini, W. Chen, G. Gigante, G. Travaglini, *Discrepancy for randomized Riemann sums*, Proc. Amer. Math. Soc. **137** (2009), 3177–3185.

29. W. Chen, G. Travaglini, *Deterministic and probabilistic discrepancies*, Ark. Mat. **47** (2009), 273–293.

30. W. Chen, G. Travaglini, *Some of Roth's ideas in Discrepancy Theory*, in "Analytic Number Theory - Essays in Honour of Klaus Roth" (W. Chen, W. Gowers, H. Halberstam, W. Schmidt and R. Vaughan Editors), Cambridge Univ. Press (2009), 150–163.

31. W. Chen, G. Travaglini, *Discrepancy with respect to convex polygons*, J. Complexity **23** (2007), 662-672.

32. L. Brandolini, G. Gigante, A. Greenleaf, A. Iosevich, A. Seeger, G. Travaglini, *Average decay estimates for Fourier transforms of measures supported on curves*, J. Geom. Analysis **17** (2007), 15–40.

33. L. Brandolini, A. Greenleaf, G. Travaglini, *$L^p - L^{p'}$ estimates for overdetermined Radon transforms*, Trans. Amer. Math. Soc. **359** (2007), 2559–2575.

34. M. Paganoni, G. Travaglini, *Percorso di Matematica e Fisica*, Emmeciquadro **27** (2006), 147–149.

35. L. Colzani, I. Rocco, G. Travaglini, *Quadratic estimates for the number of integer points in convex bodies*, Rend. Circ. Mat. Palermo **LIV** (2005), 241–252.

36. G. Travaglini, *Crittografia*, Emmeciquadro **21** (2004), 21–28.

37. G. Travaglini, *Average decay of the Fourier transform*, in "Fourier Analysis and Convexity" (L. Brandolini, L. Colzani, A. Iosevich, G. Travaglini Editors), Birkhäuser (2004), 245–268.

38. A. Russo, G. Travaglini, *Il mestiere del Matematico*, Emmeciquadro **18** (2003), 142–145.

39. L. Brandolini, A. Iosevich, G. Travaglini, *Planar convex bodies, Fourier transform, lattice points, and irregularities of distribution*, Trans. Amer. Math. Soc. **355** (2003), 3513-3535.

40. L. Brandolini, L. Colzani, A. Iosevich, G. Travaglini, *The rate of convergence of Fourier expansions in the plane: a geometric viewpoint*, Math. Z. **242** (2002), 709–724.

41. L. Brandolini, L. Colzani, A. Iosevich, A. Podkorytov, G. Travaglini, *Geometry of the Gauss map and lattice points in convex domains*, Mathematika. **48** (2001), 107–117.

42. L. Brandolini, A. Iosevich, G. Travaglini, *Spherical means and the restriction phenomenon*, J. Fourier Anal. Appl. **7** (2001), 359-372.

43. F. Ricci, G. Travaglini, *Convex curves, Radon transforms and convolution operators defined by singular measures*, Proc. Amer. Math. Soc. **129** (2001), 1739–1744.

44. L. Brandolini, M. Rigoli, G. Travaglini, *Average decay of Fourier transforms and geometry of convex sets*, Rev. Mat. Iberoamer. **14** (1998), 519–560.

45. L. Brandolini, L. Colzani, G. Travaglini, *Average decay of Fourier transforms and integer points in polyhedra*, Ark. Mat. **35** (1997), 253–275.

46. L. Brandolini, G. Travaglini, *Pointwise convergence of Fejer type means*, Tohoku Math. J. **49** (1997), 323–336.

47. G. Travaglini, *Trasformate di Radon e operatori di convoluzione su gruppi e algebre di Lie,* Rend. Sem. Mat. Fis. Milano **LXV** (1995), 265–275.

48. A. Branda, P. Suria, G. Travaglini, *Un'indagine sulle capacità matematiche degli studenti dei licei scientifici*, Ins. Mat. Scienze Integr. **18**B (1995), 311–326.

49. F. Ricci, G. Travaglini, *$L^p - L^q$ estimates for orbital measures and Radon transforms on compact Lie groups and Lie algebras*, J. Funct. Anal. **129** (1995), 132–147.

50. G. Travaglini, *Fejer kernels for Fourier series on $\mathbb{T}^n$ and on compact Lie groups*, Math. Z. **216** (1994), 265–281.

51. L. Colzani, G. Travaglini, M. Vignati, *Bochner-Riesz means of functions in weak-L^p*, Mh. Math. **115** (1993), 35–45.

52. Colzani, A. Crespi, G. Travaglini, M. Vignati, *Equiconvergence Theorems for Fourier-Bessel Expansions*, Trans. Amer. Math. Soc. **338** (1993) 43–55.

53. F. Cazzaniga, G. Travaglini, *On pointwise convergence and localization for Fourier series on compact Lie groups*, Arch. Math. **160** (1993) 378–382.

54. G. Travaglini, *Polyhedral summability of multiple Fourier series*, Coll. Math. **LXV** (1993), 103–116.

55. G. Travaglini, *Representations of Jordan algebras and special functions*, Coll. Math. **LXII** (1991), 257–266.

56. L. Colzani, G. Travaglini, *Estimates of Riesz kernels for eigenfunctions expansions of elliptic differential operators on compact manifolds*, J. Funct. Anal. **196** (1991), 1–30.

57. L. Colzani, S. Giulini, G. Travaglini, M. Vignati, *Pointwise convergence of Fourier series on compact Lie groups*, Coll. Math. **LX/LXI** (1990), 379–386.

58. G. Travaglini, *A simple proof of the divergence of Fourier series on compact connected semisimple Lie groups*, Rend. Circ. Mat. Palermo **XXXIX** (1990), 267–270.

59. G. Travaglini, *On central multipliers for compact Lie groups*, Arch. Math. **155** (1990), 394–399.

60. L. Colzani, G. Travaglini, *Hardy-Lorentz spaces and expansions in eigenfunctions of the Laplace-Beltrami operator on compact manifolds*, Coll. Math. **LVIII** (1990), 305–315.

61. L. Colzani, S. Giulini, G. Travaglini, *Sharp results for the mean summability of Fourier series on compact Lie groups*, Math. Ann. **285** (1989), 75–84.

62. S. Giulini, G. Travaglini, *Central Fourier analysis for Lorentz spaces on compact Lie groups*, Mh. Math. **107** (1989), 207–215.

63. J. Faraut, G. Travaglini, *Bessel functions associated to a representation of formally real Jordan algebras*, J. Funct. Anal. **171** (1987), 123–141.

64. G. Travaglini, *Rearrangement of coefficients of Fourier series on SU* (2), Coll. Math. **LI** (1987), 373–377.

65. S. Giulini, G. Travaglini, *Sharp estimates for Lebesgue constants on compact Lie groups*, J. Funct. Anal. **168** (1986), 106–116.

66. J.F. Price, G. Travaglini, *Weighted norm inequalities for Fourier partial sums*, Math. Japon. **130** (1985), 327–340.

67. M. Rigoli, G. Travaglini, *A remark on mappings of bounded symmetric domains into balls*, in "Harmonic analysis (Cortona, 1982)" (G. Mauceri, F. Ricci, G. Weiss Editors) Springer (1983), 387–390.

68. G. Travaglini, *An analogue of the Schwarz lemma for bounded symmetric domains*, Proc. Amer. Math. Soc. **188** (1983), 85–88

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71. S. Giulini, P.M. Soardi, G. Travaglini, *Norms of characters and Fourier series on compact Lie groups*, J. Funct. Anal. **146** (1982), 88–101

72. S. Giulini, P.M. Soardi, G. Travaglini, *Norms of characters and convergence of Fourier series on compact Lie groups*, Suppl. Rend. Circ. Mat. Palermo **11** (1981), 171–173.

73. P. Soardi, G. Travaglini, *On sets of completely uniform convergence*, Coll. Math. **XLV** (1981), 317–320.

74. G. Travaglini, *Funzione massimale, teorema fondamentale del calcolo e spazi L^p con peso*, Quaderno 6/S(11) dell'Istituto Matematico "F. Enriques" (1981).

75. S. Giulini, G. Travaglini, *L^p estimates for matrix coefficients of irreducible representations of compact groups*, Proc. Amer. Math. Soc. **180** (1980), 448–450.

76. G. Travaglini, *Dirichlet kernels and failure of localization principle for compact groups*, Rend. Ist. Lomb. Cl. Sc. **113** (1979), 111–116.

77. S. Giulini e P.M. Soardi, G. Travaglini, *A Cohen type inequality for compact Lie groups*, Proc. Amer. Math. Soc. **177** (1979), 359–364.

78. G. Travaglini, *Some properties of UC-sets*, Boll. Un. Mat. Ital. **15**-B (1978), 272–284.