

**CURRICULUM VITAE ED ELENCO DELLE PUBBLICAZIONI DI  
GIOVANNI GALLAVOTTI**

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## *Curriculum Vitae*

- (0) Nato il 29.12.1941 (Jd = 2430357.708333).
- (1) Licenza, Liceo Classico, Roma, 23/7/1959.
- (2) Laurea con lode in Fisica, Università di Roma, 1963, (Jd = 2438356.208333).
- (3) Diploma con lode della Scuola di perfezionamento in Fisica, Università di Firenze, 1965, (Jd = 2439115.958333).
- (4) Professore incaricato di "Fisica I" presso la Facoltà di Ingegneria, Università di Firenze, AA 1964/65.
- (5) Professore incaricato di "Fisica dei neutroni" presso la Facoltà di Scienze, Università di Firenze, AA 1965/66.
- (6) Ricercatore in Fisica Matematica all'Institut des Hautes Etudes Scientifiques (I.H.E.S.) di Parigi, AA 1966/67 e 1967/68.
- (7) Ricercatore presso il Dipartimento di Matematica della Rockefeller University, New York, AA 1968/69 e 1969/70.
- (8) Libero docente in "Istituzioni di Fisica Teorica" dal dicembre 1969.
- (9) Assistente Ordinario di "Analisi Matematica" presso l'Istituto di Matematica dell'Università di Roma negli AA 1970/71 e 1971/72.
- (10) Professore incaricato di "Istituzioni di Analisi Superiore" presso l'Istituto Matematico dell'Università di Roma per gli AA 1970/71 e 1971/72.
- (11) Secondo della "terna" del Concorso a Cattedra per la Meccanica Razionale, novembre 1971.
- (12) Professore Straordinario di "Metodi Matematici della Fisica" presso l'Istituto di Fisica Teorica dell'Università di Napoli, AA 1972/73 e 1974/75.
- (13) Professore visitatore presso l'Istituto di Fisica Teorica dell'Università di Nijmegen, Olanda, nell'AA 1973/74.
- (14) Editore responsabile della sezione di Meccanica Statistica dell'equilibrio della rivista scientifica "Communications in Mathematical Physics" dall'ottobre 1973 all'ottobre 1976.
- (15) Offerta della Cattedra di "Teoria della Probabilità" da parte dell'Istituto di Matematica del Politecnico federale di Zurigo (E.T.H.), gennaio 1974.
- (16) Trasferimento alla Cattedra di "Meccanica Razionale" dell'Istituto di Matematica dell'Università di Roma, 1.11.1975.
- (17) Professore incaricato presso le Scuole di Perfezionamento in Fisica presso le Università di Napoli (AA 1972/73 e 1974/75) e Roma (AA 1975/76 e 1976/77) per corsi con contenuto Fisico-Matematico.
- (18) Membro dell'Editorial Board dell'Encyclopedia of Mathematics diretta dal Prof. G.C. Rota ed edita da Addison-Wesley, dal dicembre 1975.
- (19) Membro dell'Editorial Board della rivista scientifica "Journal of Statistical Physics", dall'ottobre 1976 al 1978.
- (20) Trasferimento alla cattedra di "Istituzioni di Fisica Matematica" dell'Istituto Matematico dell'Università di Roma dal 1.11.1980.
- (21) "Lefschetz professor" al Dipartimento di Matematica della Università di Princeton, II semestre AA 1982.
- (22) Trasferimento alla Cattedra di "Meccanica Razionale" del Dipartimento di Matematica della II<sup>a</sup> Università di Roma, dal 1.11.1983.
- (23) Offerta di una cattedra di "Fisica Matematica" da parte della Rutgers University, 1983.

- (24) Membro dell'Institute for Advanced Study di Princeton nel secondo semestre AA 1984/85 e visitatore nel primo semestre dello stesso AA.
- (25) Coordinatore della Sezione "Meccanica Statistica" del Dizionario di Scienze Fisiche della Enciclopedia Italiana.
- (26) Membro dell'Editorial Advisory Board della rivista "Acta Applicandae Mathematicae", 1984~1988; del "Computational Mechanics", dal giugno 1985~1990; dei Comitati di redazione di "Il Nuovo Cimento B", 1985-2000, e di "Meccanica" 1987~1993; della rivista "Forum Mathematicum" dal 1987.
- (27) Membro dell'Advisory Board della collana "Studies in Statistical Mechanics della North Holland, diretta da J. Lebowitz, 1985~1987.
- (28) Direttore del Convegno internazionale "Problemi Matematici dalla Meccanica dei Fluidi", Accademia dei Lincei, IBM-Italia, CNR a Roma (presso l'Accademia), 6-12 giugno 1986.
- (29) Invito a tenere una relazione all' International Congress of mathematicians di Berkeley, agosto 1986.
- (30) Direttore della Scuola internazionale "Non linear Evolution and Chaotic Phenomena", Citta' di Noto, NATO-ASI, Università di Catania, IBM-Italia e CNR, Noto 8-19 giugno 1987.
- (31) Professore presso il Centro Interdisciplinare Linceo "Beniamino Segre", Accademia dei Lincei, Roma, per il triennio accademico 1986/1989
- (32) Trasferimento alla Cattedra di "Meccanica dei Fluidi" del Dipartimento di Fisica della Università di Roma, La Sapienza, dal 1 Nov 1988.
- (33) Membro del comitato fondatore e del comitato dei "Chief editors" della rivista "Journal of Nonlinear Science" della Springer Verlag, 1988.
- (34) Invito a tenere una relazione plenaria alla conferenza "SIAM conference on applications of dynamical systems", ottobre 15-19, 1992, Snowbird, Utah.
- (35) Codirettore del I° Convegno Nazionale di Meccanica Celeste, Aquila, maggio 1993.
- (36) Trasferimento alla cattedra di "Meccanica Superiore", novembre 1994.
- (37) Membro corrispondente dell' Accademia dei Lincei, luglio 1994.
- (38) Conferimento, nov. 1995, del premio per il "miglior articolo pubblicato sugli Annales de l' Institut Poincaré, sezione di Fisica Teorica, per l' Anno 1994" (anno di istituzione del premio) al lavoro n. 108 dell' elenco delle pubblicazioni.
- (39) Conferimento del "Premio Nazionale Presidente della Repubblica", presso la Classe di Scienze Naturali dell' Accademia dei Lincei, 18 giugno 1997.
- (40) Conferenza plenaria al Convegno  $M \cap \Phi$ , Brisbane, luglio 1997.
- (41) Conferenza plenaria al XX Convegno StatPhys, Parigi, luglio 1998.
- (42) Conferenza plenaria al Convegno ICM98, Berlino, agosto 1998.
- (43) Membro del consiglio scientifico dell' I.H.E.S. di Parigi, gennaio 1998-2004
- (44) Membro del Comitato di redazione del Journal des Mathématiques pures et appliquées di Parigi 1998-2006.
- (45) Organizzatore del convegno su "Separatrix splitting and Arnold diffusion", I.H.E.S. (Parigi), 5-18 Settembre 1999.
- (46) Co-rganizzatore del *Workshop in nonequilibrium statistical mechanics*, febbraio-marzo 1999 e 1-19 febbraio 2001 all'ESI di Vienna.
- (47) Membro del comitato scientifico per l'organizzazione del Convegno  $M \cap \Phi$ , Londra-2000
- (48) Membro del comitato scientifico per il Convegno StatPhys, Mexico-2001
- (49) Membro del Comitato di Redazione del Communications in Mathematical Physics, 2000-

- (50) Membro del Comitato Scientifico dell' ESI di Vienna, 2000–2008
- (51) Membro del Comitato Scientifico dell' "Institut Henri Poincaré" di Parigi, 2000–2005
- (52) Membro corrispondente dell' *Istituto di Studi Romani*, dal 2002.
- (53) Membro del "Executive Committee" della *IAMP*, International association for Mathematical Physics, 2003–2005
- (54) Membro del Comitato di Redazione del Journal of Mathematical Physics, 2004–.
- (55) President della *IAMP*, International association for Mathematical Physics, 2006-2009
- (56) Membro del comitato organizzatore del "Boltzmann's Legacy" International Symposium, ESI, Vienna, June 7-9, 2006.
- (57) Plenary talk at the 15-th "Conferencia Nacional de Fisica" of the Portuguese Physical Society, Aveiro, 4-7 Sept. 2006.
- (58) Conferimento della *Medaglia Boltzmann* del 2007 dalla IUPAP (International Union of Pure and Applied Physics).
- (59) Membro "Accademia Europaea", 2008.
- (60) Eletto membro del comitato scientifico del C.I.M.E., 1/1/2008
- (61) Eletto *Socio Nazionale* all'Accademia dei Lincei, 17/06/2011.
- (62) In pensione dal 1/11/2012.
- (63) Proposto "Emerito" dalla Facoltà di Scienze, 29/10/2013.
- (64) Socio non residente dell' Istituto Lombardo Accademia di Scienze e Lettere, 1/10/2014.
- (65) Emerito all'Università di Roma, Sapienza, con DM del 23 febbraio 2015
- (66) Conferimento del *Premio Henri Poincaré*, 23/7/2018, Montreal, ICMP2018.

Dall'elenco delle pubblicazioni risultano numerosi inviti e partecipazioni a Congressi e Scuole in qualità di relatore e insegnante.

### Books

- (1) *Meccanica Elementare*, ed. P. Boringhieri, Torino, p. 1–501, 1980.
- (2) *Aspetti della Teoria ergodica qualitativa e statistica del moto*, Quaderno U.M.I., no. 21, ed. Pitagora, Bologna, 1982, p. 1–300.
- (3) *The Elements of Mechanics*, Springer–Verlag, p.1–575, New York, 1983. Traduzione della I edizione italiana di "Meccanica Elementare", riveduta e ampliata.
- (4) *Meccanica Elementare*, seconda edizione riveduta, ed. P. Boringhieri, Torino, 1986, p. 1–536.
- (5) *Renormalization group*, p. 1–143, Princeton University Press, 1995, (G. Benfatto).
- (6) *Trattatello di Meccanica Statistica*, "Quaderni del CNR-GNFM", vol. **50**, p. 1–350, Firenze, 1995.
- (7) *Ipotesi per una introduzione alla Meccanica dei Fluidi*, "Quaderni del CNR-GNFM", vol. **52**, p. 1–428, Firenze, 1997.
- (8) *Statistical Mechanics. A short treatise*, p. 1–345, Springer–Verlag, Berlin, 1999.
- (9) *Foundations of Fluid Mechanics*, Springer–Verlag, p.1–513, 2002, 2005, ISBN: 978-3-540-41415-5.
- (10) *Aspects of the ergodic, qualitative and statistical theory of motion*, Springer–Verlag, p.1–434, 2004, (F.Bonetto, G.Gentile).
- (11) *Foundations of Fluid Mechanics*, 2a ristampa, corretta, Springer–Verlag, p. 1–519, 2005 (ISSN 0172-5998, ISBN 3-540-41415-0).
- (12) *The Elements of Mechanics*, Ipparco Editore, p.1–587, Roma, 2008. II Edizione Inglese, "Meccanica Elementare", riveduta e ampliata.

### Academies

- Professor at "Centro Interdisciplinare Linceo *Beniamino Segre*, Accademia Lincei, 86/89
- Accademia Nazionale dei Lincei (socio Corrispondente: 1994)
- Istituto nazionale di Studi Romani (socio Corrispondente, 2002)
- Academia Europaea (2008)
- Accademia Nazionale dei Lincei (socio Nazionale: 2011)
- Istituto Lombardo Accademia di Scienze e Lettere", (socio non residente, 1/10/2014).

### Awards

- *Lefschetz professor*, Mathematics Dept., Princeton U., 1982
- Prize *Presidente della Repubblica*, 1997
- *Boltzmann Medal*, IUPAP, 2007
- Prize *Henri Poincaré*, IAMP, 2018

### Courses and conferences

- International Congress of mathematicians, Berkeley, ICM-1986 (parallel session speaker)
- Plenary speaker at "SIAM conf. on applic. of dynamical systems", 1992, Snowbird, Utah
- Plenary speaker at  $M \cap \Phi$ , IAMP, sBrisbane, 1997
- Plenary speaker at XXStatPhys, Paris, 1998.
- Plenary speaker at ICM-1998, Berlin, 1998.
- Plenary speaker at 15-th "Conferencia Nacional de Fisica", Portuguese Phys. Soc., 2006.
- Plenary speaker at XXIIIStatPhys, Genova, 2007
- Bernoulli Lecture, EPFL-Lausanne, 16 May 2013
- Plenary speaker at  $M \cap \Phi$ -ICMP2018, Montreal, 23 August 2014

*Elenco delle pubblicazioni di Giovanni Gallavotti*

- (1) *Statistical Mechanics of lattice systems*, Communications in Mathematical Physics: **5**, 317–323, 1967, (S.Miracle–Solè).
- (2) *Correlation functions of a lattice system*, Communications in Mathematical Physics: **7**, 274–288, 1967, (S.Miracle–Solè).
- (3) *Analyticity properties of a lattice gas*, Physics Letters A: **25**, 493–494, 1967, (S.Miracle–Solè, D.Robinson).
- (4) *A variational principle for equilibrium of hard sphere systems*, Annales de l’Institut Henry Poincaré A: **8**, 287–299, 1968, (S.Miracle–Solè).
- (5) *On the mechanical equilibrium equations*, Il Nuovo Cimento B, **57**, 208–211, 1968.
- (6) *Analyticity properties of the anisotropic Heisenberg model*, Communications in Mathematical Physics, **10**, 311–324, 1968, (S.Miracle–Solè, D.Robinson).
- (7) *Absence of phase transitions in one dimensional systems with hard core*, Physics letters A, **26**, 350–351, 1968, (S.Miracle–Solè, D.Ruelle).
- (8) *On the cluster properties above the critical temperature in lattice gases*, Communications in Mathematical Physics, **12**, 269–274, 1969, (Miracle–Solè).
- (9) *Divergences and approach to equilibrium in the Lorentz and the Wind–tree–models*, Physical Review, **185**, 308–322, 1969.
- (10) *High temperature properties of random spin systems*, Journal of Mathematical Physics: **11**, 141–146, 1970.
- (11) *Absence of phase transitions in hard core one–dimensional systems with long range interactions*, Journal of Mathematical Physics: **11**, 147–154, 1970, (S.Miracle–Solè).
- (12) *Thermodynamic limit of time–dependent correlation functions for one–dimensional systems*, Journal of Mathematical Physics: **11**, 2898–2905, 1970, (O. Lanford, J.Lebowitz).
- (13) *One dimensional lattice gases with rapidly decreasing interactions*, Archive for Rational Mechanics and Analysis: **37**, 181–191, 1970, (T.F. Lin).
- (14) *A proof of the second Griffiths’ inequality for the X–Y model*, Studies in Applied Mathematics: **50**, 89–92, 1971.
- (15) *Thermalization of a magnetic impurity in the isotropic X–Y model*, Physical Review letters: **25**, 1449–1450, 1970, (D.Abraham, E.Barouch, A.Martin–Löf).
- (16) *Time evolution problems in Classical Statistical Mechanics and the Wind–tree–model*, in ”Cargese Lectures in Physics”, vol. IV, ed. D.Kastler, Gordon Breach, Paris, 1970, pp.257–275.
- (17) *Boundary conditions for the heat equation*, p. 1–48, ed. Ateneo, Roma, 1970; also printed in a different form in Nagoya Journal of Mathematics (see 30 below), pp: 1–48, (H.P.Mc Kean).
- (18) *Statistical Mechanics of the electron–phonon system*, Lettere al Nuovo Cimento: **4**, 1293–1297, 1970, (J.Ginibre, G.Velo).
- (19) *Phase transitions in binary lattice gases*, Journal of Mathematical Physics: **12**, 1129–1133, 1971, (J.Lebowitz).
- (20) *Dynamics of a local perturbation in the X–Y model (I)*, Studies in Applied Mathematics: **50**, 121–131, 1971, (D.Abraham, E.Barouch, A.Martin–Löf).
- (21) *Surface tension in the Ising model*, Lettere al Nuovo Cimento, **2**, 143–146, 1971, (D. Abraham, A. Martin–Löf).

- (22) *Boundary conditions and Correlation Functions in the  $\nu$ -dimensional Ising model at low temperature*, Communications in Mathematical Physics, **23**, 275–284, 1971.
- (23) *Surface tension in the Ising Model*, Communications in Mathematical Physics: **25**, 87–126, 1972, (A.Martin-Löf).
- (24) *Equilibrium states of the Ising Model in the Two-phases Region*, Physical Review B, **5**, 2555–2559, 1972, (S.Miracle-Solè).
- (25) *Dynamics of a local perturbation in the X-Y model (II)*, Studies in Applied Mathematics: **51**, 211–218, 1972, (D. Abraham, E.Barouch, A.Martin-Löf).
- (26) *Alcuni risultati rigorosi in Meccanica Statistica e loro applicazioni alla fenomenologia delle transizioni di fase*, invited talk at the meeting of the Italian Physical Society, Internal report of the Physics Department of the University of Rome, Nota interna n.347, 1971, pp. 1–16.
- (27) *Instabilities and Phase Transitions in the Ising Model*, La Rivista del Nuovo Cimento: **2**, 133–169, 1972.
- (28) *Dense sums*, Annales de l’Institut Henry Poincaré A: **17**, 195–219, 1972, (G.Fano).
- (29) *The Phase separation line in the two-dimensional Ising model and its relationships with the non-free random walk problem*, Lettere al Nuovo Cimento, **4**, 699–703, 1972, (H.Van Beyeren).
- (30) *Boundary conditions for the heat equation in a several dimensional region*, Nagoya Mathematical Journal: **47**, 1–14, 1972, (H.P.Mc Kean).
- (31) *Phase separation line in the two-dimensional Ising model*, Communications in Mathematical Physics, **27**, 103–136, 1972.
- (32) *Some problems connected with the phase separation in the Ising model at low temperature*, in Lecture notes in Physics, vol. **20**, ed. A.Lenard, Springer Verlag, Berlin, 1973, pp.162–204. (A.Martin-Löf, S.Miracle-Solè).
- (33) *On the Onsager–Yang value of the spontaneous magnetization*, Communications in Mathematical Physics: **30**, 45–54, 1973, (G.Benettin, G.Jona-Lasinio, A.Stella).
- (34) *Existence and uniqueness of equilibrium states for some spin and continuum systems*, Communications in Mathematical Physics, **32**, 153–165, 1973, (M. Cassandro, J. Lebowitz, J.L. Monroe).
- (35) *Ising model and Bernoulli shifts*, Communications in Mathematical Physics, **32**, 183–190, 1973.
- (36) *Some remarks on Ising spin systems*, Physica, **70**, 219–221, 1973, (J.Lebowitz).
- (37) *Surface tension in the two-dimensional Ising model*, Physica, **65**, 73–88, 1973, (D.Abraham, A.Martin-Löf).
- (38) *Modern theory of the billiards. An introduction*, in Global Analysis and its applications, vol. II, ed. P. De la Harpe, International Atomic Energy Commission, Vienna, 1974, p. 193–202.
- (39) *Markov processes, Bernoulli schemes and Ising model*, Communications in Mathematical Physics: **33**, 259–282, 1973, (F.Diliberto, L.Russo).
- (40) *On the calculation of an integral*, Journal of Mathematical Analysis and Applications, **44**, 661–675, 1973, (C.Marchioro).
- (41) *Rigorous theory of the Boltzmann equation in the Lorentz model*, Nota interna n. 358, Physics Department, Università di Roma, 10 febbraio 1972, pp.1–9, Per il libro "Fisica statistica" ed. E. Velarde, Madrid (non pubblicato). Archiviato nell’archivio elettronico: mp\_arc 93-304.
- (42) *Billiards and Bernoulli schemes*, Communications in Mathematical Physics: **38**, 83–101, 1974, (D.Ornstein).
- (43) *Block spins interactions in the Ising model*, Communications in Mathematical Physics, **36**, 171–184, 1974, (H.Knops)

- (44) *The Lavoisier law and the critical point*, Il Nuovo Cimento B, **25**, 691–705, 1975. (M. Cassandro).
- (45) *Block spin distributions for short range attractive Ising models*, Il Nuovo Cimento B, **25**, 425–441, 1975, (A.Martin–Löf).
- (46) *Conservation laws in the hierarchical model*, Physica, **78**, 541–543, 1974. (H.Knops, H.Van Beyeren).
- (47) *Approximate symmetries and their spontaneous breakdown*, Annales de l’Institut Henri Poincaré A: **22**, 159–172, 1975, (R. Esposito).
- (48) *On the classical KMS boundary condition*, Il Nuovo Cimento B, **28**, 274–286, 1975, (E. Verboven).
- (49) *Limit theorems for multidimensional Markov processes*, Communications in Mathematical Physics: **41**, 301–307, 1975, (G.Jona–Lasinio).
- (50) *The hierarchical model and the renormalization group*, La Rivista del Nuovo Cimento: **5**, 341–368, 1975, (H. Knops).
- (51) *Lectures on the billiard*, in “Dynamical Systems, Theory and Applications”, Lecture notes in Physics, vol. **38**, ed. J. Moser, Springer Verlag, 1975, pp. 236–295.
- (52) *Classical KMS condition and Tomita–Takesaki theory*, Communications in Mathematical Physics: **46**, 1–9, 1976, (M.Pulvirenti).
- (53) *Problemi ergodici in Meccanica Classica*, Quaderni del Consiglio Nazionale delle Ricerche, redatti da S. Graffi, Bologna, 1976, pp.1–81. E *Problèmes ergodiques de la Mécanique classique*, Laboratoire de Physique théorique, Ecole polytechnique fédérale de Lausanne, 1976, redatti da M. Robert.
- (54) *Stability and equilibrium states of infinite classical systems*, Communications in Mathematical Physics: **48**, 1–14, 1976. (M. Aizenman, S.Goldstein, J. Lebowitz).
- (55) *Operatore di Liouville e soluzioni statistiche delle equazioni di Hamilton*, Annali di Matematica pura e applicata, **108**, 227– 238, 1976.
- (56) *Classical KMS condition and Tomita–Takesaki theory*, in Asterisque, vol. **40**, Societè Mathématique de France, 1976, pp. 89–94.
- (57) *Alcuni problemi ed idee della teoria ergodica*, Bollettino Unione Matematica Italiana A: **13**, 534–544, 1976.
- (58) *Probabilistic aspects of critical fluctuations*, in Lecture notes in Physics, vol. **54**, ed. J.Brey–R.B. Jones, Springer– Verlag, 1976, pp. 250–273.
- (59) *Bernoulli schemes and their isomorphisms*, in Proceedings of the International School in Mathematical Physics, ed. Istituto di Matematica dell’Università di Camerino, Camerino, 1976, pp. 38–58.
- (60) *Funzioni zeta ed insiemi basilari*, Rendiconti dell’Accademia Nazionale dei Lincei: **51**, 509–517, 1977.
- (61) *Some aspects of the renormalization problems in Statistical Mechanics and field theory*, Memorie dell’ Accademia Nazionale dei Lincei: **15**, 23–59, 1978.
- (62) *A comment on the talk by E. Seiler*, in Mathematical Problems in Theoretical Physics, ed. G. Dell’Antonio, S. Doplicher, G. Jona–Lasinio, Lecture notes in Physics, Springer–Verlag, **80**, p. 436–438, 1978, (F. Guerra, S. Miracle–Solé).
- (63) *On the ultraviolet stability in Statistical Mechanics and field theory*, Annali di Matematica pura ed applicata: (IV), vol. **CXX**, 1–23, 1979.
- (64) *Some probabilistic techniques in field theory*, Communications in Mathematical Physics: **59**, 143–166, 1978. (G.Benfatto, M.Cassandro, F.Nicolò, E.Olivieri, E.Presutti, E.Scacciatelli).
- (65) *The exponential interaction in  $R^d$* , Physics Letters B, **83**, 177–178, 1979. (S. Albeverio, R. Höeg–Khron).



- (66) *Some results for the exponential interaction in two or more dimensions*, Communications in Mathematical Physics: **70**, 187–193, 1979. (S. Albeverio R. Hoeg–Khron).
- (67) *Elliptic equations and gaussian processes*, Journal of Functional Analysis, **36**, 343–400, 1980, (G. Benfatto, F. Nicolò).
- (68) *Ultraviolet stability in Euclidean Field Theories*, Communications in Mathematical Physics, **71**, 95–130, 1980, (G. Benfatto, M. Cassandro, F. Nicolò, E. Olivieri, E. Presutti, E. Scacciatelli).
- (69) *The stability problem in scalar field theories*, ed. L. Streit, p.408–444, Springer-Verlag, Wien-New York, 1980.
- (70) *Meccanica Elementare*, ed. P. Boringhieri, p. 1–501, Torino, 1980.
- (71) *On the massive Sine–Gordon equation in the first few regions of collapse*, Communications in Mathematical Physics, **83**, 382–410, 1982, (G. Benfatto, F. Nicolò).
- (72) *Some problems in Hamiltonian Perturbation Theory*, Rendiconti del Seminario Matematico dell’Università e del Politecnico di Torino, **40**, 107–118, 1982.
- (73) *Quelques remarques sur la non existence des integrales uniformes pour les systemes hamiltoniens quasi integrables*, G.M.E.L.,” Actualites Mathematiques, Actes du 6me congres des mathematiciens de langue latine, Gauthiers–Villars, Paris, 1982, pp.153–166, ed. P. Pier.
- (74) *Elliptic operators and gaussian processes*, in Colloques internationaux du Centre National de la Recherche scientifique, no. **307**, (Saint Flour, 22–29 juin 1980), p.349–360.
- (75) *Aspetti della Teoria Ergodica Qualitativa e Statistica del Moto*, Quaderno U.M.I., no. **21**, ed. Pitagora, Bologna, 1982, p.1–300.
- (76) *Smooth prime integrals in quasi integrable systems*, Il Nuovo Cimento B, **67**, 277–297, 1982, (L. Chierchia).
- (77) *A criterion of integrability for perturbed harmonic oscillators. Wick ordering in Classical Mechanics*, Communications in Mathematical Physics, **87**, 365–383, 1982.
- (78) *The Dirichlet problem and the Perron–Frobenius theorem*, Bollettino Unione Matematica Italiana, (6), **1B**, 1029–1038, 1982.
- (79) *A comment on  $\varphi^4$  euclidean field theory*, Physics Letters B, **122**, 265–270, 1983, (V. Rivasseau).
- (80) *The Elements of Mechanics*, Springer–Verlag, p.1–575, New York, 1983.
- (81) *Perturbation Theory for Classical Hamiltonian Systems*, in ”Scaling and self similarity in Physics”, ed. J. Fröhlich, Birkhauser, Boston, 1985, p.359–426.
- (82) *The integrability problem and the Hamilton–Jacobi equation. A Review*, Physics Reports, **103**, 177–184, 1984.
- (83) *Classical Mechanics and Renormalization Group*, in ”Regular and chaotic motions in Dynamic Systems”, ed. G. Velo, A. Wightman, Erice, 1983, NATO-ASI series B, vol. **118**, Plenum Press, New York, 1985, p. 185–232.
- (84) *Perturbations of geodesic flows on surfaces of constant negative curvature and their mixing properties*, Communications in Mathematical Physics, **95**, 61–112, 1984, (P. Collet, H. Epstein).
- (85)
- (86)  *$\varphi^4$ –Field Theory in dimension four: a modern introduction to its open problems*, Annales de l’Institut H. Poincare A, **40**, 185–220, 1984, (V. Rivasseau).
- (87) *Renormalization Theory for four dimensional scalar fields, I*, Communication in Mathematical Physics, **100**, 545–590, 1985, (F. Nicolò).
- (88) *Renormalization Theory for four dimensional scalar fields, II*, Communication in Mathematical Physics, **101**, 247–282, 1985, (F. Nicolò).

- (89) *Renormalization Theory and Ultraviolet Stability for Scalar Fields via Renormalization Group Methods*, Reviews of Modern Physics, **57**, 471–562, 1985.
- (90) *The "Screening Phase Transitions" in the Two Dimensional Coulomb Gas*, Journal of Statistical Physics, **39**, 133–156, 1985, (F.Nicolò).
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