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- Born in Naples, Italy, on 13 April 1951
- Laurea in Physics with first class honours at the University of Naples "Federico II" on 17 Marh 1975
- Fellowship of C.N.R. (National Council of Research) in Mathematical-Physics at the chair of Rational Mechanics at the Engineering Faculty of the University of Naples "Federico II", years 1978-1981
- Researcher at the chair of Rational Mechanics at the Engineering Faculty of the University of Naples "Federico II", years 1981-1984
- Visiting Research Fellow at the Dept. of Mathematics of Virginia Polytechnic Institute, Blacksburg, Va-USA, years 1984-1986
- Researcher at the Engineering Faculty of Florence, years 1984-2003
- Researcher at the Faculty of Architecture of Second University of Naples, years 2003-2005
- Associate Professor in Mathematical-Physics at the Faculty of Architecture of Second University of Naples, year 2005
- Member of G.N.F.M. (National Council of Research in Mathematical-Physics)
- Member of the Scientific Committee of the Master on Acoustics and Noise Control at the Second University of Naples

LIST OF INTERNATIONAL PUBBLICATIONS

1. A.Coniglio,U.De Angelis,A.Forlani, G.Lauro " *Distribution of physical clusters*" J.Phys. A: Math.Gen. Vol.10 N.2 1977

2. G.Busoni,G.Frosali,G.Lauro "*Energy and radiation transfer in a finite convex body with general boundary conditions*" Meccanica, 19,1984

3. G.Lauro,A.Belleni-Morante "*A simple model for a slab reactor with moving boundaries*" Transport Theory and Statistical Physics , 17,1988

4. G.Lauro,A.Belleni-Morante "*The kinetic equations in a multiplying medium with free boundaries*" Mathematical Methods in the Applied Sciences, 13, 3, 1990

5. G.Lauro,A.Belleni-Morante "*On some spectral properties of the streaming operator with mollified boundary conditions*" Lecture Notes in Pure and Applied Mathematics, 135, 1991

6. G.Borgioli,G.Lauro,R.Monaco "*On the discrete velocity models of the Enskog equation*" Series on Advances in Mathematics for Applied Sciences, 9, 1992

7. G.Lauro "*Drift velocity and suppression of runaway of electrons subject to a time dependent electric field*" Transport Theory and Statistical Physics, 22, 1993

8. G.Lauro "*A Boltzmann-like model for a problem of outgassing and contamination with velocity dependent boundary conditions*" Transport Theory and Statistical Physics, 24, 1995.

9. G.Lauro, S. Totaro "*A problem of outgassing and contamination with multiplying boundary conditions*" J. Mathematical Analysis and Applications, 195, 1995

10. A.Belleni-Morante,G.Lauro,R.Monaco "*Modelling and numerical simulation of contamination processes in random media*" Mathematics and Computers in Simulation, 42, 1996

11. G.Borgioli,V.Gerasimenko,G.Lauro,R.Monaco "*Many particles dynamical system formulation for the discrete Enskog gas*" Transport Theory and Statistical Physics , 25, 1996

12. P.Zweifel, G.Lauro "*Some comments on Case eigenfunctions*" Transport Theory and Statistical Physics, 26, 6, 1997

13. G.Lauro,S.Totaro "*Nonhomgeneous boundary conditions for the one-dimensional Broadwell model*" Communications on Applied Nonlinear Analysis, 4, 2, 1997

14. G.Borgioli,V.Gerasimenko,G.Lauro,R.Monaco " *A discrete velocity model of a gas: global in time solutions of the BBJKY hierarchy*" Reports on Mathematical Physics, 40, 3, 1997

15. G.Lauro, S.Totaro "*A semilinear Cauchy problem with a time dependent source on the boundary*" Transport Theory and Statistical Physics, 27, 3-4, 1998

16. A.Bove, S.DeMartino, G.Lauro " *Trend to equilibrium in the dynamics of a gas Interacting with a radiation field*" Mathematics and Computers in Simulation , Elsevier, Vol. 54, 2000

17. S.DeMartino, V.Gerasymenko, G.Lauro "*Quantum-like approach to many-particle classical system*" Bullettin of the University of Kiev, Series: Physics & Mathematics No. 3 , 2001.

18. S. De Martino, S. De Siena, F. Illuminati, G. Lauro "*A constitutive equation for the pressure tensor leading to the hydrodynamic form of a nonlinear Schroedinger equation*" Proc. XI Conf. On Waves and Stability in Continuous Media, Eds. R. Monaco et al., World Scientific, Singapore 2002

19. G.Lauro, R.Monaco, M.Pandolfi Bianchi "*A nonlinear transport problem of monochromatic photons in resonance with a gas*" Proc. of 23 Int. Symp. on Rarefied Gas Dynamics, American Institute of Physics , Vol. 663, 2003

20. S.DeMartino, M.Falanga, C.Godano, G.Lauro "*Logarithmic Schroedinger-like equation as a model of magma transport*" Europhysics Letters, Vol.63 N.3, 2003

21. S.DeMartino, G.Lauro "*Soliton-like solutions of a capillary fluid*" Proc. XII Conf. on Waves and Stability in Continuous Media, Eds. R. Monaco et al., World Scientific, Singapore, 2004

22. S. De Martino, M. Falanga, G. Lauro, S.I. Tzenov" *Kinetic derivation of the hydrodynamic equations for capillary fluids*", Physical Review E 70, (2004)

23. G.Lauro,R.Monaco,G.Servente“*A model for the evolution of bioenergy in an environmental system*"Asymptotic Methods in Nonlinear Wave Phenomena Eds. M. Sammartino et al., World Scientific, Singapore, 2007

LIST OF NATIONAL PUBBLICATIONS

24. G.Lauro,P.Renno “Comportamento asintotico del campo elettromagnetico nei gas ionizzati“ Boll. UMI, 5 16 B (1979)

25. G.Lauro ,P.Renno “Sul principio di Huygens in un plasma freddo“ Rend. Acc. Naz . Lincei , Serie VIII vol.LXVI (1979)

26. G.Lauro “Sull'unicità della soluzione del problema di Cauchy per una classe di mezzi dispersivi“ Rend.Ist.Lombardo A 113 (1979)

27. G.Lauro,P.Renno “Sulla diffusione delle onde elettromagnetiche in unmezzo dispersivo “ Rend. Acc. Naz. Lincei, Serie VIII vol. LXVII (1980)

28. G.Lauro,E.Mazziotti “Sull'unicità della soluzione delle equazioni della dinamica dei corpi viscoelastici in un dominio illimitato“ Boll. UMI, 6 1-B (1982)

29. G.Lauro,A.Belleni-Morante “Neutron transport and heat transfer in a region with free boundaries“ Conf. Sem. Mat. Univ. Bari, 230, 1989

30. G.Borgioli, V.Gerasimenko,G.Lauro,R.Monaco“Discrete velocity models of BBJKY hierarchy for an Enskog gas“ Preprint n.12,1994 del Dip. Matematica Politecnico di Torino

31. G.Lauro “Initial-boundary value problems for the Broadwell model of the Boltzmann equation in three dimensions“ Preprint n.7 1995 Dip.Matematica Applicata“G. Sansone“, Firenze

32. G.Lauro,A.Soares “Initial-boundary value problems for the Broadwell model“ Rend.Circ.Mat. Palermo, Serie II, Suppl. 45, 1996

33. G.Borgioli,V.Gerasimenko, G.Lauro "Derivation of a discrete Enskog equation from the dynamics of particles" Rend.Sem.Mat.Univ:Pol.Torino Vol.56, 2, 1998

34. G-Lauro“ Introduzione ai modelli matematici di base in ecologia” nel volume : La riqualificazione delle aree dismesse, Liguori Editore, 2006