

CURRICULUM VITAE

Name: Marzio Cassandro

Address: Dipartimento di Fisica "G. Marconi"
Università degli Studi di Roma "La Sapienza"
Piazzale Aldo Moro, 2
00185 ROMA (ITALY)
marzio.cassandro@roma1.infn.it

Personal: born on March 3, 1938,Naples,Italy
Married with Elisabetta Aicardi.
Children: Daniele and Chiara.

Laurea in Fisica, Dept. of Physics, University of Rome, 1961.
Fellowship from the Istituto Nazionale di Fisica Nucleare (1961-1963).
Assistant Professor , Department of Physics, University of Rome (1963-1965).
Research Associate at the Laboratory of Nuclear Sciences (Massachusetts Institute of Technology) (1965-1967).
Research associate at the Istituto Nazionale di Fisica Nucleare in Rome (1967-1973).
Associated Professor, Department of Physics, University of Rome (1973-1987).
Full Professor in Theoretical Physics, Department of Physics, University of Rome La Sapienza (1987-2010).

Presidente del Consiglio di Corso di Laurea in Fisica dell'Università di Roma «La Sapienza» (1987-1989).
Coordinatore del Dottorato in Fisica dell'Università di Roma “La Sapienza”(1998-2001)

Visiting Professor:

- Institute des Hautes Etudes Scientifiques (Bures sur Yvette), France.
- Mathematics Department, Rutgers University (New Brunswick) U.S.A.
- Instituto de Matematica Pura e Aplicada (Rio de Janeiro) Brasil.
- Centre de Physique Theorique CNRS (Luminy, Marseille), France.
- Ecole Polytechnique (Lausanne), Switzerland.
- ICTP (Trieste) Italy.
- Mathematics Department, Un. of Texas, Austin (U.S.A.).
- Instituto de Matematica e Estatistica, USP, São Paulo, Brasil.
- Laboratoire des Hautes Energies Paris VI Jussieu.
- Laboratoire de Physique mathématique Montpellier, France.
- Centro Brasileiro de Pesquisas Físicas (Rio de Janeiro) Brasil
- Laboratoire d'analyse, topologie et probabilités CNRS Marseille France

LIST OF PUBLICATIONS

- 1) M.Cassandro: Pion Production at Threshold with Strip approximation: *Nuovo Cimento*, 196 (1962).
- 2) M.Cassandro, M.Cini, G.Jona-Lasinio and L.Sertorio: Perturbative Expansions of Regge-Pole Trajectories for Yukawa Potentials: *Nuovo Cimento*, 28, 1351 (1963).
- 3) M.Cassandro, M.Cini: Asymptotic Behaviour of the Vertex Function in field Theory: *Phys.Lett.*, 11, 169 (1964).
- 4) M.Cassandro, M.Cini: Asymptotic Behaviour of the Vertex Function in Perturbation Theory: *Nuovo Cimento*, 34, 1719 (1964).
- 5) M.Cassandro, M.Formisano: Asymptotic Behaviour of the Vertex Function in Spinor-Pseudoscalar Theory: *Phys.Lett.*, 15, 292 (1964).
- 6) F.Calogero, M.Cassandro: Asymptotic Nature of the Perturbative Expansion for the Scattering Parameters Due to a Potential $g r^{-2} \ln(R/r)$: *Nuovo Cimento*, 34, 1712 (1964).
- 7) F.Calogero, M.Cassandro: Exponentially Singular Potentials and Peratization: *Nuovo Cimento*, 37, 760 (1965).
- 8) J.B.Bronzan, M.Cassandro and M.T.Vaughn: V-q Sector of the Lee Model, Eigenphases and Levinson's Theorem: *Nuovo Cimento*, 46, 128 (1966).
- 9) S.Bacchetti, M.Cassandro, E.Elli, F.Mauro: Relationship between Recovery from Sublethal Damage by Dose Fractionation and the restoration of viability after delayed Plating in Diploid Saccharomices cerevisiae: *Radiation Research*, 29, 295 (1966).
- 10) S.Bacchetti, M.Cassandro, F.Mauro: Radiosensitivity in relation to the cell cycle and recovery form X-ray Sublethal damage in diploid yeast: *Experimental Celle Research*, 46, 292 (1966).
- 11) E.Abers, M.Cassandro, I.Muzinich, V.Teplitz: Conspiracy and evasion: the electron's ways: *Phys.Rev.* 170, 1331 (1968).
- 12) M.Cassandro, M.Greco-Large angle p-p scattering, the Coerulus-Martin bound and the Veneziano Model: *Lettere al Nuovo Cimento*, 1, 181 (1969).
- 13) M.Cassandro, L.Maiani: Factorization and degeneracy of the Hadron Spectrum in the Veneziano Model: *Lettere al Nuovo Cimento*, 2, 279-283 (1969).
- 14) G.Benfatto, M.Cassandro, M.Lusignoli, F.Nicolò: A study of the $K^0(K,-)\pi^+\bar{N}^0(N,-)$ final states of N annihilation at rest in the Veneziano Language: *Nuovo Cimento*, 1A, 255-273 (1971).
- 15) D.Capocaccia, M.Cassandro, G.Ciccotti: Equilibrium states of an Ising ferromagnetic in the low temperature region: *Commun. Math. Phys.*, 29, 31 (1973).
- 16) M.Cassandro, G.Gallavotti, J.L.Lebowitz, J.L.Monroe: Existence and uniqueness of equilibrium states for some spin and continuus systems: *Commun. Math. Phys.*, 32, 153 (1973).
- 17) M.Cassandro, A. da Fano: Rigorous properties of a continuous system in the high activity region: *Commun. Math. Phys.*, 36, 277 (1974).
- 18) D.Capocaccia, M.Cassandro, E.Olivieri: A study of Metastability in the Ising Model: *Commun. Math. Phys.*, 39, 185 (1974).
- 19) M.Cassandro, G.Gallavotti: The Lavoisier law and the critical point: *Nuovo Cimento*, 25B, 691 (1975).
- 20) M.Cassandro, A. da Fano, E.Olivieri: Existence of a phase transition for a lattice system model with a repulsive hard core and an attractive short range interaction: *Commun. Math. Phys.*, 44, 45 (1975).
- 21) M.Cassandro, G.Jona-Lasinio: Autocovariance function and violation of strong mixing, in: 'Many degrees of Freedom in field theory' edited by LStreit (Plenum Press, N.Y.London,

1978). Proceedings of the 1976 International summer Institute of Theoretical Physics, Bielefeld (August 23 - September 4, 1976).

- 22) M.Cassandro, E.Olivieri: A rigorous study of Metastability in a continuous Model: Journal of Stat.Phys., 17, 229 (1977).
- 23) M.Cassandro, E.Olivieri, A.Pellegrinotti, E.Presutti: Existence and uniqueness of D.L.R. Measure for Unbounded spin systems: Z.Wahrscheinlichkeitstheorie verw Gebiete, 41, 313 (1978).
- 24) G.Benfatto, M.Cassandro, G.Gallavotti, F.Nicolò, E.Olivieri, E.Presutti, E.Scacciatelli: Some probabilistic techniques in field theory: Commun. Math. Phys., 59, 143 (1978).
- 25) M.Cassandro, G.Jona-Lasinio: Critical point behaviour and probability theory: Advances in Physics, 27, 913 (1978).
- 26) G.Benfatto, M.Cassandro, G.Gallavotti, F.Nicolò, E.Olivieri, E.Presutti, E.Scacciatelli: On the ultraviolet stability in the euclidean scalar field theory: Commun. Math. Phys., 71, 95 (1980).
- 27) M.Cassandro, E.Olivieri: Renormalization Group and analyticity in one dimension: a proof of Dobrushin theorem: Commun. Math. Phys., 80, 255 (1981).
- 28) M.Cassandro, E.Olivieri, B.Tirozzi: Infinite differentiability for one dimensional spin systems with long range random interaction: Commun. Math. Phys., 87, 229 (1982).
- 29) M.Cassandro, A.Galves, E.Olivieri, M.E.Vares: Metastable behavior of stochastic dynamics: a pathwise approach. Journal of Stat. Phys., 35, 603 (1984).
- 30) M.Cassandro, E.Olivieri, P.Picco: Infinite number of pure states, Parisi order parameter and the ultrametric topology: a simple mean field model, J.Phys. A: Math. Gen. 19, 973 (1986).
- 31) M.Cassandro, E.Olivieri, P.Picco: Small random perturbations of infinite dimensional dynamical systems and the nucleation theory, Ann. Inst. Henri Poincaré, Vol.44, 1986, pag.343, 396.
- 32) D.Capocaccia, M.Cassandro, P.Picco: On the existence of thermodynamics for the generalized random energy model. Journal of Stat. Phys., 46, 493 (1987).
- 33) M.Cassandro, F.Nicolò, B.Scoppola: The (N=1) Supersymmetric Sine-Gordon Model in two dimensions (I) Comm. in Math. Phys, 122, 681 (1989).
- 34) M.Cassandro, F.Nicolò, B.Scoppola: The (N=1) Supersymmetric Sine-Gordon Model in two dimensions (II) Comm. in Math. Phys, 123, 123 (1989).
- 35) M.Cassandro, F.Nicolò, P.Perfetti, B.Scoppola: The Gross-Neveu and the Yukawa Models. C.A.R.R. Reports in Math. Phys. n.26/90.
- 36) M.Cassandro, A.Galves, P.Picco: Dynamical phase transitions in a disordered system: a rigorous analysis. Ann. Inst. H.Poincaré 55, 689, 1991.
- 37) M.Cassandro, E.Orlandi, E.Presutti: Interfaces and Typical Gibbs Configurations for One-Dimensional Kac Potentials. Prob. Theory Relat. Fields 96, 57 (1993).
- 38) M.Cassandro, P.K.Mitter: Renormalization approach to interacting crumpling surfaces: the hierarchical recursion Nuclear Physics B422 634 (1994).
- 39) M.Cassandro, R.Marra, E.Presutti: Corrections to the critical temperature in 2D Ising model with Kac potential Journal of Stat. Phys. 78 1131 (1995).
- 40) G.Alberti, G.Bellettini, M.Cassandro, E.Presutti: Surface tension in Ising systems with Kac potentials Journal of Stat. Phys. 82 743 (1996).
- 41) G.Bellettini, M.Cassandro, E.Presutti: Constrained minima of non local free energy functionals. Journal of Stat. Phys. 84 1337 (1996).
- 42) M.Cassandro, E.Presutti: Phase transitions in Ising systems with long but finite range interactions. Markov processes and related fields vol 2, 241 (1996).
- 43) M.Cassandro, R.Marra, E.Presutti: Upperbounds on the critical temperature for Kac

- potentials. *Journal of Stat. Phys.* 88, 537 (1997).
- 44) M.Cassandro, P.Collet, A.Galves, C.Galves: A Statistical-Physics Approach to Language Acquisition and Language Change. *Physica*,A263 (1999).
- 45) M.Cassandro, E.Orlandi, P.Picco: Typical Configurations for one dimensional random field Kac model
Annals of probability 27, 1114 (1999).
- 46) M.Cassandro, P.Picco: Phase transitions for a quantum particles system. *Journal of Stat. Phys.*, 103, 841 (2001)
- .47) M.Cassandro, E.Orlandi, P.Picco : The optimal interface profile for a nonlocal model of phase separations. *Nonlinearity* 15, 1621 (2002)
- 48) M.Cassandro, P.Ferrari, I.Merola, E.Presutti ; Geometry of contours and Peierls estimates in d=1 Ising models with long range interactions *J. of Math. Phys.* Vol.46 n.5 (2005)
- 49) G.Benfatto,M.Cassandro, I.Merola, E.Presutti ; Limit theorems for statistics of combinatorial partitions with applications to mean field Bose gas. *J.of Math. Phys* Vol.46 n.3(2005)
- 50) M.Cassandro, E.Orlandi, P.Picco, M.e.Vares ; One-dimensional random field kac's model: localization of the phases. *Electronic Journal of Probability* vol.10,786(2005)
- 51) M.Cassandro, P.Collet, D.Duarte, A.Galves, J.Garcia: A stochastic model for the speech sonority *Mathematics and social sciences* 180, 43 (2007)
- 52) M.Cassandro, E.Orlandi, P.Picco ; Phase transitions in the 1D random field Ising model with Long range interactions ; *Commun. In Math Phys.* Vol.288,731 (2009)
- 53) M.Cassandro, I.Merola, M.E.Vares : Study of long range perturbation of a one dimensional Kac Model. *Journal of Stat. Phys.* 142, 487 (2011)
- 54) M.Cassandro, A.Galves, E. Loecherbach : Partially observed Markov random fields are variable neighborhood random fields . *Journal of Stat.Phys.* 147, 795 (2012)
- 55) M.Cassandro, I.Merola, P.Picco,U.Rozikov : One-Dimensional Ising Models With Long Range Interactions: Cluster Expansion, Phase-Separating Point. Submitted to Com. in Math Phys. (2013)