

CURRICULUM VITAE
IMMACOLATA MEROLA

Personal data :

Name: Immacolata Merola

Birth Data: 19-3-1963, Napoli

Nationality: Italian

Home addresses: in Roma 00195 - Largo Generale Gonzaga del Vodice, 4

Tel.(+39)063741431/0645221451

Fiscal number : MRLMCL63C59F839I

University address : Dipartimento di Matematica, Universita' degli studi di L'Aquila - DISIM - Via Vetoio I-67010 Coppito (L'Aquila) AQ - Italy

E-mail: immacolata.merola@univaq.it

Education:

*) Doctor in Physic: 1992 -May, 28 - University of Rome "La Sapienza"

*) Phd in Mathematics: 1999- April, 21 - University of Rome "Tor Vergata"

Academic and Research Positions:

Post-Doc fellows:

*) Math. Dep. - Technische Universitat of Berlin. October 1999-March 2000

*) Istituto Nazionale di Alta Matematica (INDAM).Rome May 2000 - December 2000

Research positions:

*) Math.Dep. of University of Roma II "Tor Vergata". December 2000-August 2003

*) Math.Dep.- University of Roma I "La Sapienza". October 2003-February 2005

*) Phys.-Math, University of L'Aquila, Dipartimento di Matematica Pura e Applicata - since March, 1th, 2005

Publications:

1. De Masi, A, Merola, I, Presutti, E (2021). Reservoirs, Fick law, and the Darken effect. JOURNAL OF MATHEMATICAL PHYSICS, vol. 62, ISSN: 0022-2488, doi: 10.1063/5.0049680

- 2.** De Masi A., Merola I., Olla S. (2019). Interface Fluctuations in Non Equilibrium Stationary States: The SOS Approximation. JOURNAL OF STATISTICAL PHYSICS, ISSN: 0022-4715, doi: 10.1007/s10955-019-02450-w
- 3.** Cassandro, Marzio, Merola, Immacolata, Presutti, Errico (2018). Renewal properties of the $d = 1$ Ising model. REVIEWS IN MATHEMATICAL PHYSICS, vol. 30, ISSN: 0129-055X, doi: 10.1142/S0129055X18500186
- 4.** CASSANDRO, Marzio, MEROLA, IMMACOLATA, PICCO, Pierre (2017). Phase Separation for the Long Range One-dimensional Ising Model. JOURNAL OF STATISTICAL PHYSICS, vol. 167, p. 351-382, ISSN: 0022-4715, doi: 10.1007/s10955-017-1722-1
- 5.** Luiz Renato Fontes, Domingos H. U. Marchetti, MEROLA, IMMACOLATA, Errico Presutti, Maria Eulalia Vares (2015). Layered Systems at the Mean Field Critical Temperature. JOURNAL OF STATISTICAL PHYSICS, vol. 161, p. 91-122, ISSN: 0022-4715, doi: 10.1007/s10955-015-1307-9
- 6.** Cassandro M, Merola I, Picco P, Rozikov U (2014). One-Dimensional Ising Models with Long Range Interactions: Cluster Expansion, Phase-Separating Point. COMMUNICATIONS IN MATHEMATICAL PHYSICS, vol. 327, p. 951-991, ISSN: 0010-3616, doi: 10.1007/s00220-014-1957-5
- 7.** Fontes L R, Marchetti D H U, Merola I, Presutti E, Vares M E (2014). Phase Transitions in Layered Systems. JOURNAL OF STATISTICAL PHYSICS, vol. 157, p. 407-421, ISSN: 0022-4715, doi: 10.1007/s10955-014-1090-z
- 8.** Cassandro M., MEROLA, IMMACOLATA, Vares M. E. (2011). Study of a Long Range Perturbation of a One-Dimensional Kac Model. JOURNAL OF STATISTICAL PHYSICS, vol. 142, p. 487-509, ISSN: 0022-4715, doi: 10.1007/s10955-011-0123-0
- 9.** DE MASI A, MEROLA I., PRESUTTI E, VIGNAUD Y (2009). Coexistence of Ordered and Disordered Phases in Potts Models in the Continuum. JOURNAL OF STATISTICAL PHYSICS, vol. 134; p. 243-306, ISSN: 0022-4715, doi: 10.1007/s10955-008-9677-x
- 10.** DE MASI A, MEROLA I., PRESUTTI E, VIGNAUD Y (2008). Potts models in the continuum. Uniqueness and exponential decay in the restricted ensembles. JOURNAL OF STATISTICAL PHYSICS, vol. 133; p. 281-345, ISSN: 0022-4715, doi: 10.1007/s10955-008-9603-2
- 11.** GOBRON T, MEROLA I. (2007). First-order phase transition in Potts models with finite-range interactions. JOURNAL OF STATISTICAL PHYSICS, vol. 126; p. 507-583, ISSN: 0022-4715
- 12.** BENFATTO G, CASSANDRO M, MEROLA I., PRESUTTI E (2005). Bose

Condensation and Large Loops in the Mean Field model. JOURNAL OF MATHEMATICAL PHYSICS, vol. 46, ISSN: 0022-2488

- 13.** CASSANDRO M, FERRARI P.A, MEROLA I., PRESUTTI E (2005). Geometry of contours and Peierls estimates in $d=1$ Ising models with long range interactions. JOURNAL OF MATHEMATICAL PHYSICS, vol. 46, ISSN: 0022-2488
- 14.** BOVIER A, MEROLA I., PRESUTTI E, ZAHRADNIK M (2004). On the Gibbs phase rule in the Pirogov-Sinai regime. JOURNAL OF STATISTICAL PHYSICS, vol. 114; p. 1235-1267., ISSN: 0022-4715
- 15.** BAFFIONI F, MEROLA I., PRESUTTI E (2002). The liquid and vapor phases in particle models with Kac potentials. MARKOV PROCESSES AND RELATED FIELDS, vol. 8; p. 271-318, ISSN: 1024-2953
- 16.** MEROLA I. (2000). On the absence of non-translational invariant Gibbs states in two dimensions. MARKOV PROCESSES AND RELATED FIELDS, vol. 6; p. 517-541, ISSN: 1024-2953
- 17.** MEROLA I. (2000). Lebowitz-Penrose limit for continuum particle systems. MARKOV PROCESSES AND RELATED FIELDS, vol. 6; p. 329-344, ISSN: 1024-2953
- 18.** MEROLA I. (1999). Asymptotic expansion of the pressure in the inverse interaction range. JOURNAL OF STATISTICAL PHYSICS, vol. 95; p. 745-758, ISSN: 0022-4715
- 19.** BUTTA P, MEROLA I., PRESUTTI E (1997). On the validity of the van der Waals theory in Ising systems with long range interactions. MARKOV PROCESSES AND RELATED FIELDS, vol. 3; p. 63-88, ISSN: 1024-2953
- 20.** MEROLA I., RAGNISCO O, TU GUI-ZHANG (1994). A novel hierarchy of integrable lattices,. INVERSE PROBLEMS, vol. 10; p. 1315-1334, ISSN: 0266-5611

