Errico Presutti. Curriculum vitae

Place and Date of birth: Roma, Sept. 26, 1942.
Residence. Home: Via G. Nicotera 29, 00195 Roma, Italy. tel. +39 063223337.
e-mail: errico.presutti@gmail.com
Italian Codice Fiscale: PRSRRC42P26H501G. US Social Security: 143-74-0343
Civil Status: widower.

Graduated in Physics 1967, University of Roma.

Associate Professor, 1971-80, at the University of L'Aquila and then of Roma.

Full Professor since 1980, first at the University of L'Aquila, then Roma La Sapienza and since 1988 Roma Tor Vergata. Correspondent member of the Accademia dei Lincei (Nov. 2009).

Retired from Roma Tor Vergata since November 2012.

Member and professor at GSSI since February 2013.

2014, Professor Emeritus at the University of Roma Tor Vergata, Department of Mathematics.

Activity before 2001: Visiting Professor at: Stanford and Yeshiva, 1974-75; IHES, Oct. - Nov. 1976; Rutgers University, Sept. - Nov. 1976, 1977, 1978; IHES, Nov. 1979 - May 1980; Sao Paulo, May 1980 - Aug 1980; IHES, Sept. 1980 - Nov. 1980; Heidelberg, May 1981; Rutgers, Sept. - Dec. 1982; IMPA, July - Sept. 1983;Moscow, Apr. 1984; IHES, Sept. 1984 - Jan. 1985; Paris VI, May - July 1986.; Invited talk at the Bernoulli Society Congress, Tashkent 1986; Moscow, Sept.1986; Santa Barbara. Aug. - Dec. 1987; Boulder, Jan. - May 1988; Rutgers, Dec. 1989, Nov.-Dec. 1992; IHES, March 1993; Cambridge, Newton Inst., Sept.-Dec. 1993; Kaiserslautern, Jan. 1994; Rouen, Nov. - Dec. 1995; Courant, NYU, Oct. 1995 - Jan. 1996; IHP,Paris, June 1998; Invited speaker at the Statistical Physics Conference, Paris, July 1998; Invited to give a course in statistical mechanics at the Max-Plank Institute, Leipzig. Autumn 1999; Invited professor at Rutgers University, 2000.

Activity since 2001:

2001. Plenary talk at 23rd Coloquio Brasileiro de Matematica, July 23-27, IMPA; Visiting professor at IMPA, July-August 2001. Invited talk at the Vth Brazilian School of Probability, July 30-August 4, 2001.

2002. Invited talk at the Conference " Free boundary problems" Trento, June, 2002.

2003. Course of three lectures at the CIRM Conference on Classical and Quantum Phase Transitions. Marseille, March 17-21. Invited talk at the Closing event of the "Research Network on Interacting Stochastic Systems", Berlin, April 7-11.

2004. Invited at the Joint EMS mathematical week-end, Sept. 3-5, 2004, Prague, to give a plenary talk on "Probabilitstic and variational methods in problems of phase transition".

2005. Conference lecture on "Microstructures and scaling limits" at the Colloquia of the Mathematical Dept. of Roma La Sapienza, May 30. Lecture on "Tunnelling" at the Spin glasses and scaling limits in Physics Conference in ZIF,

Bielefeld, May 2-5. Course of lectures on statistical mechanics at the "Studienstifung des Deutschen Volkes", St. Johann, 28 August–10 September 2005. Lecture "On phase diagrams of continuous particle systems", Conference on "Chaos and disorder in mathematics and physics", Bressanone, Tuesday Sept. 19-24.

2006. Lecture on "A variational approach to tunnelling, Modelling and analysis of phase transitions", Workshop; Pisa Jan. 19-21. Lecture on "Magnetostriction effects in statistical mechanics", Workshop, Berlin, 24-27 May. Lecture on "Magnetostriction effects in continuum Potts models", La Pietra week in Probability, Conference on "Stochastic processes in mathematical physics"; Firenze, June 19-23. Lecture on "Microscopic and mesoscopoic models with first order phase transitions", Oberwolfach meeting, Sept. 25. Lecure on "Some open problems in statistical mechanics", at the Jona-Lasinio closing PRIN conference, Roma 5 Oct.2006. Research presentation lecture on "Phase transitions in statistical mechanics following van der Waals along the lines proposed by Kac" at the MultiMat Midterm Meeting, Nov.r 22-24 2006. Univ. Antwerpen.

2007. Invited talk on "Interfaces in particle systems: macroscopic limits and stochastic fluctuations" at the Conference "Evolution of interfaces and applications", Roscoff May 9-11. A 12 lectures course on: "Blow up in continuum mechanics and scale limits in statistical mechanics", Scuola Estiva di Fisica Matematica, Ravello, September 10-22, 2007. Invited talk at the Workshp "Microscopic Origins of Dissipation and Noise", Leipzig October 31, November 3 2007.

2008. Plenary talk at the SIAM Conference on "Mathematical Aspects of Materials Science", Philadelphia, May 11-14, 2008. Invited talk at the workshop "Grefi-Mefi 2008", CIRM, Marseille. Mini-course on "Nonequilibrium phenomena", Schroedinger Institute in Vienna, June 2-6, 2008 (part of a special semester at the ESI on Hyperbolic (chaotic) Dynamical Systems). Plenary talk at the "Symposium on Trends in Applications of Mathematics to Mechanics", Levico, September 22-25, 2008.

2009. Plenary talk (on the dynamical nature of thermostat) al workshop: Mathematical models from Physics and Biology. Bonn April 2-4 2009. Visiting professor at Rutgers, 6-22 Aprile 2009. Invited talk ("Particles models for Fourier law") at the conference "Mathematical Challenges Motivated by Multi-Phase Materials: Analytical, Stochastic and Discrete Aspects"; Anogia, June 21-26, 2009. Invited talk in Munich, July 16-19, 2009, Conference in honour of H.O. Georgii. Invited talk (August 27, "Coexistence of metastable phases in states with a current") at the "Workshop on Phase Transitions", Leipzig August 24-27 2009. Invited talk (Phase transitions in the continuum: results and open problems) at the Berlin Leipzig Seminar, Analysis and Probability Theory, Nov. 27 2009.

2010. Vitsiting Professor at IHES, February 3-22, 2010.

2011. Invited speaker (title of talk: Phase transitions, multi-scale Kac potentials and pattern formation) at the conference "Intellectual challenges in multiscale modelling of solids", July 4-5, 2011, Oxford, UK. Plenary talk UMI Congresso, Bologna, Sptember 12-17, 2011, title: "Transizioni di fase, trasformazioni di scala e strutture spaziali", 17 Sett, 2011. Lecturer at the "First Sperlonga Summer School on Mechanics and Ingeneering Sciences. Atomistic and Continuum Description of Microstructures". 26–30 Settembre 2011. 5 Lectures with general title: Atomistic and continuum descriptions of matter, emergence of microstructures.

2012. Invited talk, title: some examples of phase transitions, at the meeting "Interplay of Analysis and Probability in Physics", Oberwolfach, January 22-27 2012. June 2012: visiting Professor at the Husdorff Institute, Bonn. Invited talk at the Conference in honor of Herbert Spohn, Munich, June 28 2012. Invited speaker at the conference "Interacting Particle Systems and Related Topics", August 27–31, 2012 at Villa Finaly, Firenze. Invited talk (colloquium), Eindhoven October 9-10 2012.

2013. Invited talk, title: renewal properties of d=1 Ising models at the workshop "equilibrium and non equilibrium statistical mechanics", CIRM, Marseille, February 4–15 2013.

Modena, March 4-6 2013. Seminar: "spectral gap for the exclusion process with births and deaths".

Bielefeld, 10-15 Giugno 2013. Invited talk: "Particle Models for Free Boundary Problems" at the workshop: ZiF 2013 Workshop 4 "Fusion of knowledge in stochastic modelling of large complex systems"

Leipzig, June 24-26 2013, workshop "Emerging structures in analysis and probability: a conference in honor of Stephan Luckhaus' 60th birthfay". Invited talk: Particle models for the Stefan problem.

Mambucaba (Brasil). August 4-10, 2013. Minicourse in 5 Lecures titled: "From equilibrium to non equilibrium statistical mechanics. Phase transitions and the Fourier law".

2014. September 18/20, 2014, Rome. Invited talk at the conference *Mathematical Physics: From Theory to Applications. Conference in honor of Brunello Tirozzi* Title: Hydrodynamic limit for interacting neurons.

2014. October 1, Rome. Talk on "Stationary states of large systems: the microscopic, mesoscopic and macroscopic theories". In occasion of the Levi-Civita prize award.

2017. Invited talk at the conference " Dynamics and hydrodynamic limits in statistical mechanics" January 20-21, 2017. Title: "Two-scales analysis of the d=1 Ising model with Kac potentials".

Organizational Activity.

Co-organizer of the Conference "Statistical Mechanics and Applications", Roma, Sept. 5-10, 2003. Co-organizer of the Oberwolfach meeting on "Phase Transitions" June 20-26, 2004. Co-organizer of the Closing Conference of the PRIN project "Dynamical Systems: Classical, Quantum and Stochastic", Roma, October 2006. Co-organizer of the "Workshop on Microscopic approaches to elastic and surface tension functionals", Roma, October 14-29, 2006. Co-organizer of the Oberwolfach meeting "Phase transitions" June 3-9, 2007. Co-organizer of the "Workshop on Phase transitions" August 24-27, 2009. Co-organizer with Prof. S.Luckhaus of the workshop "Phase Transitions", August 23-28 2009, at the Max Planck Institute in Leipzig. Associate Editor for "Brazilian Journal of Probability and Statistics".

2013. Organization of activities in Probability at the GSSI.

Honors. Recipient of the prize for best paper published in 1995 on AHP, Institute Henri Poincare', Theoretical-Mathematical Physics. Recipient of the prize for best paper published in 2002 on AHP, Institute Henri Poincare'/Birkhauser, Theoretical-Mathematical Physics. Recipient of the prize " Agostinelli" for Mathematical Physics, issued by the Accademia dei Lincei. June 2005. Correspondent

member of Accademia dei Lincei since 2009. Awarded the Tullio Levi-Civita prize, Rome 2014.

PUBLICATIONS

1970-1979

C. Marchioro, E. Presutti: *Exact statistical model in one dimension.* Lettere al Nuovo Cimento **4** 488–490, (1970).

P. Camiz, A. Gerardi, C. Marchioro, E. Presutti, E. Scacciatelli: *Exact solution of a time depndent quantal harmonic oscillator with a singular perturbation.* J. Math. Phys. **12** 2040–2043, (1971).

C. Marchioro, E. Presutti: *Thermodynamics of particle systems in the presence of external macroscopic fields: I classical case.* Commun. Math. Phys. **27** 146–154 (1972).

C. Marchioro, E. Presutti, E.Scacciatelli: *Analysis of the time correlations of infinitely large systems by studying the relaxation of a spin 1/2 probe system.* Physica **57** 79–92, (1972).

E. Presutti, E. Scacciatelli, J. Sewell, F. Wanderling: *Studies in the c*-algebraic theory of non equilibrium statistical mechanics. Dynamics of open mechanically driven systems.* J. Math. Phys. **13**, 1085–1098, (1972).

M. Giura, R. Marcon, E. Presutti, E. Scacciatelli: *Magnetoacoustic scillations in Sn-doped Bi with the magnetic field orthogonal to the sound propagation: I experimental evidence and theoretical interpretation.* J. Phys. C **5**, 2405–2418 (1972).

M. Giura, R. Marcon, P, Marietti, E. Presutti: *Magnetoacoustic oscillations in Sn-doped Bi with the magnetic field orthogonal to the sound propagation: II high magnetic fields.* J. Phys. C **5**, 3073–3084, (1972).

M. Giura, R. Marcon, E. Presutti, E. Scacciatelli: *New kind of magnetoacoustic oscillations in Sn-doped Bi.* Solid State Commun. **10**, 1281–1283, (1972).

M. Giura, R. Marcon, P, Marietti, E. Presutti: *Hole g-factor in Sn-doped Bi.* Phys. Stat. Sol. b **54**, 777–781, (1972).

A. Gerardi, C. Marchioro, E. Olivieri, E. Presutti: *Van der Waals-Maxwell theory, Lebowitz Penrose limit and superstable interactions.* Commun. Math. Phys. **29**, 219–231, (1973).

C. Marchioro, E. Presutti: *Thermodynamics of particle systems in the presence of external macroscopic fields: II quantal case.* Commun. Math. Phys. **29**, 265–284, (1973).

G. Caldiera, E. Presutti: *Gibbs processes and generalized Bernoulli flows for hard-core one dimensional systems.* Commun. Math. Phys. **35**, 279–286, (1974).

C. Marchioro, A. Pellegrinotti, E. Presutti: *Time evolution in Statistical Mechanics.* Lettere al Nuovo Cimento **11**, 606–609, (1974).

E. Presutti, E. Scacciatelli: *Local bounded perturbations of KMS states.* J. Math. Phys. **15**, 1620, (1974).

C. Marchioro, A. Pellegrinotti,E. Presutti: *Existence of time evolution for ν-dimensional Statistical Mechanics.* Commun. Math. Phys. **40**, 175, (1975).

E. Presutti: *A mechanical definition of the thermodynamical pressure.* J. Stat. Phys. **13**, 301–314, (1975).

C. Marchioro, A. Pellegrinotti, E. Presutti, M. Pulvirenti: *On the dynamics of particles in a bounded region: a measure theoretical approach.* J. Math. Phys. **17**, 647–652, (1976).

E. Presutti, M. Pulvirenti, B. Tirozzi: *Time evolution of infinite classical systems with singular long range, two body interactions.* Commun. Math. Phys. **47**, 81–95, (1976).

J.L. Lebowitz, E. Presutti: *Statistical mechanics of unbounded spins.* Comm. Math. Phys. **50**, 195–218, (1976).

G. Benfatto, E. Presutti, M. Pulvirenti: *DLR measures for one dimensional harmonic systems.* Z. Wahr. verw. Gebiete **41**, 305–312, (1978).

M. Cassandro, E. Olivieri, A. Pellegrinotti, E. Presutti: *Existence and uniqueness of DLR measures for unbounded spin systems.* Z. Wahr. verw. Gebiete **41**, 313–334, (1978).

G. Benfatto, M. Cassandro, G. Gallavotti, F. Nicolò, E. Olivieri, E. Presutti, E. Scacciatelli: *Some probabilistic techniques in field theory.* Commun. Math. Phys. **59**, 143–166, (1978).

S. Goldstein, J.L. Lebowitz, E. Presutti: *Stationary Markov chains.* Colloquia Mathematica Societatis Janos Bolyai **27**, 419–427, (1979).

S. Goldstein, J.L. Lebowitz, E. Presutti: *Mechanical systems with stochastic boundaries.* Colloquia Mathematica Societatis Janos Bolyai **27**, 403–419, (1979).

1980-1989

G. Benfatto, M. Cassandro, G. Gallavotti, F. Nicolò, E. Olivieri, E. Presutti, E. Scacciatelli: *Ultraviolet stability in Euclidean scalar field theories.* Commun. Math. Phys. **71**, 95–130, (1980).

G. Benfatto, C. Marchioro, E. Presutti, M. Pulvirenti: *Superstability estimates for anharmonic crystals.* J. Stat. Phys. **22** , 349–362, (1980).

A. Galves, C. Kipnis, C. Marchioro, E. Presutti: *Non equilibrium measures which exhibit a temperature gradient: study of a model.* Commun. Math. Phys. **81**, 124–147, (1981).

P. Ferrari, A. Galves, E. Presutti: *Closeness between a symmetric simple exclusion process and a system of independent random walks. Applications.* Nota Interna dell'Università dell'Aquila, (1981).

C. Kipnis, C. Marchioro, E. Presutti: *An exactly solvable model for heat conduction.* J. Stat. Phys. **27** , 65–74, (1982).

A. De Masi, N. Ianiro, E. Presutti: *Small deviations from local equilibrium for a process which exhibits hydrodynamical behavior.* I. J. Stat. Phys. **29** , 57–80, (1982).

A. De Masi, P. Ferrari, N. Ianiro, E. Presutti: *Small deviations from local equilibrium for a process which exhibits hydrodynamical behavior.* II . J. Stat. Phys. **29** , 81–94, (1982).

M. Campanino, E. Presutti: *Perturbative ergodic theorem in Hilbert spaces.* IHES /P/ 82/ 14, (1982).

A. De Masi, E. Presutti: *Probability estimates for simple exclusion random walks.* Ann. Inst. H.Poincaré A **19**, 71–85, (1983).

C. Kipnis, J.L. Lebowitz, E. Presutti, H. Spohn: *Self diffusion for particles with stochastic collisions in one dimension.* J. Stat. Phys. **30**, 107–122, (1983).

E. Presutti, H. Spohn: *Hydrodynamics of the voter model.* Annals of Probability **11**, 867–875, (1983).

A. De Masi, N. Ianiro, A. Pellegrinotti, E. Presutti: *A survey of the hydrodynamica l behavior of many particle systems.* Studies in Statistical Mechanics, Vol.11: Non-equilibrium phenomena II, from Stochastics to Hydrodynamics. Editors J.L.Lebowitz and E.W.Montroll. Ch.II, 124-294, North Holland, (1984).

E. Presutti: *Hydrodynamical behavior of systems with infinitely many components.* Proceedings of the Dubna Conference, (1984).

C. Boldrighini, A. De Masi, A. Nogueira, E. Presutti: *The dynamics of a particle interacting with a semi infinite ideal gas is a Bernoulli flow.* Progress in Physics Statistical Physics and Dynamical Systems **10**, 153–189, Birkhauser, (1985).

E. Presutti, Ya.G. Sinai, M.R. Soloviechic: *Hyperbolicity and Möller morphism for a model of classical statistical mechanics.* Progress in Physics Statistical Physics and Dynamical Systems **10**, 253–284, Birkhauser, (1985).

E. Presutti: *Shock waves and surface phenomena in stochastic partcle systems.* Invited Lecture at the Varenna School, (1985).

C. Boldrighini, A. Pellegrinotti, E. Presutti, Ya.G. Sinai, M.R. Soloviechic: *Ergodic properties of a one dimensional semi-infinite system of Statistical Mechanics.* Commun. Math. Phys. **101**, 363–382, (1985).

E. Presutti, E. Scacciatelli: *Time evolution of a one dimensional point system: a note on Fritz's paper.* J. Stat. Phys. **38**, 603–614, (1985).

A. De Masi, E. Presutti, H. Spohn, W.D. Wick: *Asymptotic equivalence of fluctuation fields for reversible exclusion processes with speed change.* Annals of Probability **14**, 409–423, (1986).

A. De Masi, E. Presutti, M.E. Vares *Escape from the unstable equilibrium in a random process with infinitely many interacting particles.* J. Stat. Phys. **44**, 645–694, (1986).

E. Presutti: *Collective behaviour in interacting particle systems.* Invited talk at the I World Congress of the Bernoulli Society, Tashkent 1986.

A. Galves, E. Presutti: *Edge fluctuations for the one dimensional supercritical contact process.* Annals of Probability **15**, 1131–1145, (1987).

A. Galves, E. Presutti: *Traveling wave structure of the one dimensional contact process* . Stochastic Processes and their Applications **25**, 153–163, (1987).

C. Boldrighini, A. De Masi, A. Pellegrinotti, E. Presutti: *Collective phenomena in interacting particle systems.* Stochastic Processes and their Applications **25**, 137–152, (1987).

P. Ferrari, E. Presutti, M.E. Vares: *Local equilibrium for a one dimensional zero range process* . Stochastic Processes and their Applications **26**, 31–46, (1987).

E. Presutti: *Collective phenomena in stochastic particle systems.* Lecture Notes in Mathematics **1250**, 195–232, Springer-Verlag, (1987).

P. Ferrari, E. Presutti, M.E. Vares: *Non equilibrium fluctuations for a zero range process.* Ann. Instit. H. Poincare' A **24**, 237–268, (1988).

J.L. Lebowitz, E. Presutti, H. Spohn: *Microscopic models of hydrodynamic behavior.* J. Stat. Phys. **51**, 841–862, (1988).

E. Presutti, W.D. Wick: *Macroscopic fluctuations in a one dimensional mechanical system.* J. Stat. Phys. **52**, 497–502, (1988).

J.L. Lebowitz, E. Orlandi, E. Presutti: *Convergence of stochastic cellular automaton to Burgers' equation: fluctuations and stability.* Physica D **33**, 165–188, (1988).

A. De Masi, R. Esposito, J.L. Lebowitz, E. Presutti: *Rigorous results on some stochastic cellular automata.* Proceedings of the Conference *Discrete Kinetic Theory, Lattice Gas Dynamics and Foundations of Hydrodynamics*, Torino, (1988).

S. Caprino, A. De Masi, E. Presutti, M. Pulvirenti: *A stochastic particle system modelling the Carleman equation.* J. Stat. Phys. **55**, 625–638 , (1989); *Addendum* J. Stat. Phys. **59**, 535–537, (1989).

P. Calderoni, A. Pellegrinotti, E. Presutti, M.E. Vares: *Transient bimodality in interacting particle systems.* J. Stat. Phys. **55**, 523–578, (1989).

A. De Masi, E. Presutti, E. Scacciatelli: *The weakly asymmetric simple exclusion process.* Ann. Inst. H. Poincare' A **25**, 1–38, (1989).

A. De Masi, C. Kipnis, E. Presutti, E. Saada: *Microscopic structure at the shock in the asymmetric simple exclusion.* Stochastics **27**, 151–165, (1989).

A. De Masi, R. Esposito, J.L. Lebowitz, E. Presutti: *Hydrodynamics of stochastic HPP cellular automata.* Commun. Math. Phys. **125** , 127–145, (1989).

A. De Masi, E. Presutti: *Lectures on the collective behavior of particle systems.* CARR Reports in Math. Phys. 5/89, (1989).

1990-1999

J. Gärtner, E.Presutti: *Shock fluctuations in a particle system.* Ann. Inst. H. Poincaré B **53**, 1–14, (1990).

P. Ferrari, E. Presutti, E. Scacciatelli, M.E. Vares: *The symmetric simple exclusion process.* I *probability estimates.* Stochastic processes and applications, 89–105, (1991).

P. Ferrari, E. Presutti, E. Scacciatelli, M.E. Vares: *The symmetric simple exclusion process.* II *applications.* Stochastic processes and applications, 107–115, (1991).

S. Caprino, A. De Masi, E. Presutti, M. Pulvirenti: *A derivation of the Broadwell equation.* Commun. Math. Phys. **135**, 443–465, (1991).

J.L. Lebowitz, E. Orlandi, E. Presutti: *A particle model for spinodal decomposition.* J. Stat. Phys. **63**, 933–974, (1991).

E. Orlandi, E. Presutti: *Some rigorous results on phase segregation for stochastic cellular automata.* Discrete models of fluid dynamics Editor A.S. Alves, 45–59, World Scientific, (1991).

A. De Masi, E. Presutti: *Mathematical methods for hydrodynamical limits.* Lecture Notes in Mathematics **1501**, Springer-Verlag, (1991).

A. De Masi, R. Esposito, E. Presutti: *Kinetic limits of the HPP cellular automaton.* J. Stat. Phys. **66**, 403–464, (1992).

M. Cassandro, E. Orlandi, E. Presutti: *Interfaces and typical Gibbs configurations for one dimensional Kac potentials.* Theory Prob. Rel. Fields **96**, 57–96, (1993).

E. Presutti: *Phase separation and interfaces for spin systems with Kac potentials.* Phase transitions: mathematics, physics, biology,... World Scientific, Editor R. Kotecký, Proceedings of the Workshop in Prague, June 1-5, 1992, 164–181, (1993).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Motion by curvature by scaling non local evolution equations.* J. Stat. Phys. **73**, 543–570, (1993).

L. Bertini E. Presutti, B. Rüdiger, E. Saada: *Dynamical critical fluctuations and convergence to a stochastic non linear PDE in one dimension.* Theory of Probability and its Applications **38**, 689–741, (1993).

A. De Masi, A. Pellegrinotti, E. Presutti, M.E. Vares: *Spatial patterns when phases separate in an interacting particle system.* Annals of Probability **22**, 334–371, (1994).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Glauber evolution with Kac potentials. I. Mesoscopic and macroscopic limits, interface dynamics.* Nonlinearity **7**, 633-696, (1994).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Stability of the interface in a model of phase separation.* Proceedings Royal Soc. Edinburgh **124A**, 1013–1022, (1994).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Uniqueness and global stability of the instanton in non local evolution equations* . Rendiconti di Matematica **14**, 693–723, (1994).

M. Cassandro, R. Marra, E. Presutti: *Corrections to the critical temperature in 2d Ising systems with Kac potentials.* J. Stat. Phys. **78**, 1131–1138, (1995).

S. Brassesco, A. De Masi, E. Presutti: *Brownian fluctuations of the interface in the d=1 Ginzburg-Landau equation with noise.* Annal. Inst. H. Poincaré **31**, 81–118, (1995).

A. De Masi, T. Gobron, E. Presutti *Travelling fronts in non local evolution equations* . Arch. Rational Mech. Anal. **132**, 143–205, (1995).

E. Presutti: *Critical fluctuations in a spin system.* Fields Institute Communications, **6**, 189–206, (1996).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Glauber evolution with Kac potentials. II. Fluctuation.* Nonlinearity **9**, 27–51, (1996).

A. De Masi, E. Orlandi, E. Presutti, L. Triolo: *Glauber evolution with Kac potentials. III. Spinodal decomposition.* Nonlinearity **9**, 53–114, (1996).

G. Alberti, G. Bellettini, M. Cassandro, E. Presutti: *Surface tension in Ising systems with Kac potentials.* J. Stat. Phys. **82**, 743–796, (1996).

G. Bellettini, M. Cassandro, E. Presutti: *Constrained minima of non local free energy functionals.* J. Stat. Phys. **84**, 1337–1349, (1996).

M. Cassandro, E. Presutti: *Phase transitions in Ising systems with long but finite range interactions.* Markov Processes and Related Fields **2**, 241–262, (1996).

T. Bodineau, E. Presutti: *Phase diagram of Ising systems with additional long range forces.* Commun. Math. Phys. **189**, 287–298, (1997).

P. Buttà, I. Merola, E. Presutti: *On the validity of the van der Waals theory in Ising systems with long range interactions.* Markov Processes and Related Fields **3**, 63–88, (1997).

O. Benois, T. Bodineau, P. Buttà, E. Presutti: *On the validity of the van der Waals theory of surface tension.* Markov Processes and Related Fields **3**, 175–198, (1997).

M. Cassandro, R. Marra, E.Presutti: *Upper bounds on the critical temperature for Kac potentials.* J. Stat. Phys. **88**, 537–566, (1997).

S. Brassesco, P. Buttà, A. De Masi, E. Presutti: *Interface fluctuations and couplings in the $d = 1$ Ginzburg-Landau equation with noise.* Journal of Theoretical Probability, **11**, 25–80, (1998).

A. De Masi, E. Olivieri, E. Presutti: *Spectral properties of integral operators in problems of interface dynamics and metastability.* Markov Processes and Related Fields **4**, 27–112, (1998).

O. Benois, T. Bodineau, E. Presutti: *Large deviations in the van der Waals limit.* Stochastic Proc. and their Appl. **75**, 89–104 (1998).

J.L. Lebowitz, A. Mazel, E. Presutti: *Rigorous proof of a liquid-vapor phase transition in a continuum particle system.* Phys. Rev. Letters **80**, 4701, (1998).

E. Presutti: *Phase transitions in the continuum.* Notes of lectures given at IHP; Paris, June 1998. CARR n. 3/98.

E. Presutti: *Liquid-Vapor Phase Transitions for Systems with Finite Range Interactions.* J. Stat. Phys. **94**, 955–1025, (1999).

S. Brassesco, E.Presutti, V. Sidoravicius, M.E. Vares: *Ergodicity and exponential convergence of a Glauber + Kawasaki process.* On Dobrushin's way. From probability theory to statistical physics, Amer. Math. Soc. Transl. Ser. 2 **198**, 37–49, (1999)

E. Presutti: *Phase Transitions for point particle systems.* Statistical Physics, Invited papers from StatPhys 20, Paris, July 20-24, 1998. North Holland; Physica A, **263** 141–147 (1999)

G. Giacomin, J.L. Lebowitz, E. Presutti: *Deterministic and stochastic hydrodynamic equations arising from simple microscopic model systems.* Mathematical Surveys and Monographs, Vol. **94**, SPDE's Six Perspectives, AMS. pages 107–149, (1999).

2000-2009

S. Brassesco, E.Presutti, V. Sidoravicius, M.E. Vares: *Ergodicity of a Glauber + Kawasaki process with metastable states.* Markov Processes and Related Fields, **6**, 181–204, (2000).

A. De Masi, E. Olivieri, E. Presutti: *Critical droplet for a non-local mean field equation.* Markov Process. Related Fields **6**, 439–471 (2000).

E. Presutti: *Liquid-vapour phase transitions.* Invited talk at ICMP, London, July 2000.

G. Bellettini, P. Buttà, E. Presutti: *Sharp interface limits for non local anisotropic interactions.* Arch. Rational Mech. Anal. **159**, 109–135, (2001).

F. Baffioni, I. Merola, E. Presutti: *The liquid and vapor phases in particle models with Kac potentials.* Markov Proc. and Rel. Fields, **8** 271-318, (2002).

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