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List of Publications

- [1] F.Marchetti, P.Negrini: *Several Functions in the Problem of the Stability of Motion*. Actes du Colloque Equa-Diff 73, compl. p.49-56
- [2] F.Marchetti, P.Negrini, L.Salvadori, M.Scalia: *Biforcazione e Stabilità Totale*. ATTI II CONGRESSO AIMETA, Napoli 1974, vol.I, p.105-116
- [3] F.Marchetti: *Stability and Bifurcation for Dynamical Systems*. PROC. INT. SCHOOL OF MATH. PHYS. (Sept.30 - Oct.12, 1974) Camerino, p.378-390.
- [4] F.Marchetti, P.Negrini, L.Salvadori, M.Scalia: *Lyapunov Direct Method in Approaching Bifurcation Problems*. Ann.Mat.Pura e Appl. (IV) **108**(1976)211-225 **MR 56 #3421**
- [5] F.Marchetti: *Some Stability Problems from a Topological Point of View*. Rend. Acc. Naz. Lincei Rend. Cl. Scienze FMN (VIII)**60**(1976)733-742 **MR 58 #31010**
- [6] C.Boldrighini, M.Keane, F.Marchetti: *Billiards in polygons*. Séminaire de Probabilités, I (Univ. Rennes, Rennes, 1976), Exp. No. 1, 19 pp. Dépt. Math. Informat., Univ. Rennes, Rennes, 1976. **MR 58 #31007a**
- [7] C.Boldrighini, M.Keane, F.Marchetti: *Billiards in Polygons*. Ann.Prob. **6**(1978)532-540 **MR 58 #31007b**
- [8] L.Ferrante, F.Marchetti: *Criteria for Total Stability*. Nota Int. Ist. Mat. "G.Castelnuovo",1979
- [9] M.Barra, G.Del Grosso, A.Gerardi, G.Koch, F.Marchetti: *Some Basic Properties of Stochastic Population Models*. In SYSTEM THEORY IN IMMUNOLOGY, Lecture Notes in Biomathematics **37**, Springer-Verlag, Berlin (1979)155-164 **MR 82h:92030**
- [10] L.Ferrante, F.Marchetti: *Some Results on Total Stability*. Boll.UMI (5)**18-A**(1981)435-440 **MR 83e:58045**
- [11] G.Del Grosso, A.Gerardi, F.Marchetti: *A Diffusion Model for Patch Formation on Cellular Surfaces*. Appl.Math.Optimiz. **7**(1981)125-135 **MR 83e:92018**

- [12] G.Del Grosso, A.Gerardi, F.Marchetti: *Probabilistic Methods for Eigenvalue Estimates*. PROCEEDINGS 10TH IMACS CONGRESS, Montréal (1982) vol.4, p.306
- [13] G.Del Grosso, A.Gerardi, F.Marchetti: *Probabilistic Methods for Eigenvalue Estimates*. Math. and Comp. in Simul. **XXVI**(1984)373-376 **MR 86g:35145**
- [14] C.DeLisi, G.Del Grosso, F.Marchetti: *A Theory of Measurement and Error and its Implications for Spatial and Temporal Gradient Sensing during Chemotaxis*. Cell Biophys. **4**(1982)211-229
- [15] G.Del Grosso, F.Marchetti: *Limit Theorems in Stochastic Biological Modelling*. Math. Biosc. **66**(1983)157-165 **MR 85k:92022**
- [16] G.Del Grosso, A.Gerardi, F.Marchetti: *Lateral Diffusion and Eigenvalue Estimates*. Bull.Math.Biol. **45**(1983)627-634 **MR 85a:92002**
- [17] G.Del Grosso, F.Marchetti: *Asymptotic Estimates for the Principal Eigenvalue of the Laplacian in a Geodesic Ball*. Appl.Math.Optimiz. **10**(1983)37-50 **MR 85a:58097**
- [18] G.Del Grosso, F.Marchetti: *Principal Eigenvalues and Exit Times for Diffusions on Manifolds*. System Analysis-Modelling-Simulation **1**(1984)175-182 **MR 87e:58212**
- [19] G.Del Grosso, F.Marchetti: *Asymptotic Estimates for Principal Eigenvalues*. In MATHEMATICS IN BIOLOGY AND MEDICINE (V.Capasso, L.Grosso, S.Paveri Fontana, eds.) Lecture Notes in Biomathematics **57**, p.488-493, Springer-Verlag, Berlin (1985) **MR 812 910**
- [20] F.Marchetti: *Asymptotic Exponentiality of Exit Times*. Stat.Prob.Letters **1**(1983)167-170 **MR 84i:60102**
- [21] C.DeLisi, F.Marchetti: *A Theory of Measurement and Error and its Implications for Spatial and Temporal Gradient Sensing during Chemotaxis II. The Effects of Non-Equilibrating Binding*. Cell Biophys. **5**(1983)237-253
- [22] F.Marchetti: *Chemotactic Motion in a Gradient. A Model for Cell Response and Sensing Error Effects*. Preliminary Report. Preprint (1983).
- [23] A.Gandolfi, A.Gerardi, F.Marchetti: *Association Rates of Diffusion-Controlled Reactions in Two Dimensions*. Acta Applicandae Mathematicae **3**[3](1985) **MR 86m:92007**
- [24] A.Gerardi, F.Marchetti, A.M.Rosa: *Simulation of Diffusions with Boundary Conditions*. Syst. Contr. Lett. **4**(1984)253-261 **MR 85f:93084**
- [25] A.Gerardi, F.Marchetti: *Simulation of Stochastic Processes Representing Cumulative Effects of Random Disturbances*. MODELING AND SIMULATION, vol.15, part 2, pp.805-809. PROCEEDINGS 15TH ANNUAL PITTSBURGH CONFERENCE ON MODELING AND SIMULATION (Apr 19-20, 1984) (W.G.Vogt, M.H.Mickle, eds.)
- [26] C.DeLisi, M.Gex-Fabry, F.Marchetti: *A Markovian Model for Identification of Complementarity Determining Residues in Immunoglobulin Sequences*. Preprint (1986)
- [27] A.Calzolari, C.Costantini, F.Marchetti: *A Confidence Interval for MonteCarlo Methods with an Application to Simulation of Obliquely Reflecting Brownian Motion*. Stoch.Proc.Appl. **29**(1988)209-222 **MR 89h:65011**
- [28] M.Gex-Fabry, F.Marchetti, K.Nakata, C.DeLisi: *Identifying Weak Signals in the Presence of Noise: A New Method for Locating Ligand Contact Residues in Immunoglobulin-Related Molecules*. Molecular Immunology **26**(1989)[12]1169-1178
- [29] W.Kliemann, G.Koch, F.Marchetti: *On the Unnormalized Solution of the Filtering Problem with Counting Process Observations*. IEEE Trans. on Information Theory **36**(1990)[6] 1415-1425
- [30] G.DelGrosso, F.Marchetti: *Low-Dimensional Filters for Finite-State Systems*. (1988) Preprint.

- [31] G.Del Grosso, K.Fan, W.Kliemann, F.Marchetti: *Dimension Reduction for Filtered Markov Chains*. Preprint (1991)
- [32] F.Marchetti: *Constrained Systems*. (1992) In PROCEEDINGS OF THE INTERNATIONAL WORKSHOP PROBABILISTIC METHODS IN MATHEMATICAL PHYSICS (Certosa di Pontignano, Siena, Italy, 6-11 May 1991), F.Guerra, M.I. Loffredo, C.Marchioro eds., World Scientific, Singapore, 1992. **MR 1 189 382**
- [33] T.G.Kurtz, F.Marchetti: *Averaging Stochastically Perturbed Hamiltonian Systems*. Proc. 1993 Summer Research Institute on Stochastic Analysis. AMS Proceedings of Symposia in Pure Mathematics (1995) **MR 96f:60098**
- [34] O.Arcudi, F.Marchetti: *Martingale Techniques and Approximate Filters*. Politecnico di Milano. Quaderno n.**169/P** (1995).
- [35] A.Calzolari, F.Marchetti: *Limit Motion of an Ornstein-Uhlenbeck Particle on the Equilibrium Manifold of a Force Field*. J.Appl.Prob. **34**(1997)[4]924-938 **MR 99b:60135**
- [36] F.Marchetti, L.Mastroeni: *Option Pricing with Vanishing Stochastic Volatility*. Politecnico di Milano. Quaderno n.**365/P** (1999).
- [37] F. Marchetti., L.Mastroeni: *Splitting Free Lunches: Preliminary Report*. Politecnico di Milano Quaderno (2001)
- [38] F.Marchetti: *Allocating Losses Between Competing Arrivals in a Single-Server Simple Queue*. Politecnico di Milano. Quaderno (2001)
- [39] P.Glynn, F.Marchetti: *A New Complexity Measure for Monte Carlo Computations*. In preparation.
- [40] F.Marchetti: *Sequences of random nested intervals and the bargaining problem*. In preparation
- [41] F.Marchetti: *The Loss Process for Multi-Class Queues*. In preparation.
- [42] F.Marchetti, F. Russo: *Statistical Tests for Planarity of Smooth Domains*. In preparation
- [A] A.Gerardi, F.Marchetti: *Introduzione all'Analisi Qualitativa dei Processi di Diffusione*. Quad. MONIF **17** (1981) Roma
- [B] C.Costantini, F.Marchetti: *Misure Invarianti per Processi di Markov*. Quad.MONIF **18** (1981) Roma.
- [C] F.Marchetti: *Markov Models*. In MATHEMATICAL ASPECTS OF HUMAN DISEASES. Proceedings of the workshop, Erice 20-28 March 1991, G.Da Prato, ed. Giardini, (1992) Pisa
- [D] F.Marchetti: *Appunti per il corso di introduzione alla probabilità e processi stocastici per le applicazioni alla finanza matematica* (CORIPE, 1998). <http://www1.mate.polimi.it/~marchett>
- [E] F.Marchetti: *Trasparenze per il corso di Processi Stocastici* (SAMI, 2000) <http://www1.mate.polimi.it/~marchett>
- [F] F.Marchetti: *Appunti e trasparenze per i corsi di MPSPS, Matematica B e CMSM A* (Politecnico di Milano, 1998-2002) <http://www1.mate.polimi.it/~marchett>
- [G] F.Marchetti: *Classroom Notes and Solutions to Selected Problems for Math 307K, 307H, 307C, 307A, 308C, 394B, 324* (University of Washington, Autumn 2000, Winter 2001, Summer 2001, 2002, 2005, and 2006) <http://math.washington.edu/~marchett>
- [H] F.Marchetti: *Classroom Notes and Solutions to Selected Problems for Math 125, 156, 240, 331, 341, 430* (Western Washington University, Fall 2003, Winter and Summer 2004) <http://cc.wvu.edu/~marchef>
- [I] F.Marchetti: *Classroom Notes and Solutions to Selected Problems for Math 99* (Shoreline Community College, starting Winter 2005) <http://www.shoreline.edu/~fmarchetti>.