

Bibliography

- [1] A. Bhatt, G. Kallianpur, R. Karandikar, and J. Xiong. On interacting systems of Hilbert space valued diffusions, 1995. To appear in *Applied Mathematics and Optimization*.
- [2] P. Billingsley. *Convergence of Probability Measures*. John Wiley and Sons, 1968.
- [3] T. Chiang, G. Kallianpur, and P. Sundar. Propagation of chaos and the McKean-Vlasov equation in duals of nuclear spaces. *Applied Mathematics and Optimization*, 24:55–83, 1991.
- [4] P.L. Chow. Large deviation problem for some parabolic Itô equations. *Communications on Pure and Applied Mathematics*, 45:97–120, 1992.
- [5] J. Conway. *A Course in Functional Analysis*. Springer-Verlag, 1990.
- [6] R. Curtain. Infinite dimensional estimation theory applied to a water pollution problem. *Lecture Notes in Computer Science*, 41:685–699, 1975.
- [7] C. Dellacherie and P.A. Meyer. *Probabilities and Potential B*. North-Holland, 1982.
- [8] J. Deuschel and D. Stroock. *Large Deviations*. Academic Press, 1989.
- [9] S. Ethier and T. Kurtz. *Markov Processes: Characterization and Convergence*. John Wiley and Sons, 1986.
- [10] A. Friedman. *Partial Differential Equations of Parabolic Type*. Prentice-Hall, Englewood Cliff, New Jersey, 1964.
- [11] A. Garsia. Continuity properties of Gaussian processes with multidimensional time parameter. In *Proc. Sixth Berkeley Symp. Math. Stat. Prob.*, volume 2, pages 369–374. Univ. California Press, Berkeley, 1970.
- [12] I. M. Gel'fand and N. Ja. Vilenkin. *Generalized Functions*, volume 4. Academic Press, 1964.

- [13] G. Hardy, G. Kallianpur, S. Ramasubramanian, and J. Xiong. The existence and uniqueness of solutions of nuclear space-valued stochastic differential equations driven by Poisson random measures. *Stochastics*, 50:85–122, 1994.
- [14] T. Hida. *Brownian Motion*. Springer-Verlag, 1980.
- [15] M. Hitsuda and I. Mitoma. Tightness problem and stochastic evolution equation arising from fluctuation phenomena for interacting diffusions. *Journal of Multivariate Analysis*, 19:311–328, 1986.
- [16] A.L. Hodgkin and A.F. Huxley. A quantitative description of membrane current and its application to conduction and excitation in nerve. *Journal of Physiology*, 117:500–544, 1952.
- [17] I.A. Ibragimov. On smoothness conditions for trajectories of random functions. *Theory of Probability and Applications*, 28:240–262, 1983.
- [18] N. Ikeda and S. Watanabe. *Stochastic Differential Equations and Diffusion Processes*. North-Holland, 1981.
- [19] K. Itô. Stochastic analysis in infinite dimensions. In A. Friedman and M. Pinsky, editors, *Stochastic Analysis*, New York, 1978. Academic Press.
- [20] K. Itô. Distribution valued processes arising from independent Brownian motions. *Mathematische Zeitschrift*, 182:17–33, 1983.
- [21] K. Itô. *Foundations of Stochastic Differential Equations in Infinite Dimensional Spaces*, volume 47 of *CBMS Notes*. SIAM, Baton Rouge, 1984.
- [22] J. Jacod and A. N. Shiryaev. *Limit Theorems for Stochastic Processes*. Springer-Verlag, 1987.
- [23] G. Kallianpur. Stochastic differential equations in duals of nuclear spaces with some applications. Technical Report 244, Inst. Math. Appl., 1986.
- [24] G. Kallianpur, I. Mitoma, and R. L. Wolpert. Diffusion equation in duals of nuclear spaces. *Stochastics*, 29:1–45, 1990.
- [25] G. Kallianpur and H. Odaira. Freidlin-Wentzell estimates for abstract Wiener processes. *Sankhyā*, A 40:116–137, 1978.
- [26] G. Kallianpur and V. Perez-Abreu. Stochastic evolution equations driven by nuclear-space-valued martingales. *Applied Mathematics and Optimization*, 17:237–272, 1988.

- [27] G. Kallianpur and R. L. Wolpert. Infinite dimensional stochastic differential equation models for spatially distributed neurons. *Applied Mathematics and Optimization*, 12:125–172, 1984.
- [28] G. Kallianpur and R. L. Wolpert. Weak convergence of stochastic neuronal models. In M. Kimura, G. Kallianpur, and T. Hida, editors, *Stochastic Methods in Biology*, volume 70, pages 116–145. Springer, 1987.
- [29] G. Kallianpur and J. Xiong. Asymptotic behavior of a system of interacting nuclear-space-valued stochastic differential equations driven by Poisson random measures. *Applied Mathematics and Optimization*, 30:175–201, 1994.
- [30] G. Kallianpur and J. Xiong. Stochastic models of environmental pollution. *Advances in Applied Probability*, 26(2):377–403, 1994.
- [31] G. Kallianpur and J. Xiong. Diffusion approximation of nuclear space-valued stochastic differential equations driven by Poisson random measures. *Annals of Applied Probability*, 5(2):493–517, 1995.
- [32] G. Kallianpur and J. Xiong. Large deviation principles for a class stochastic reaction-diffusion equations, 1995. To appear in *Annals of Probability*.
- [33] P. Kotelenetz. A class of function and density valued stochastic partial differential equations driven by space-time white noise, 1993. Preprint.
- [34] H. Kunita. Stochastic partial differential equations connected with nonlinear filtering. In S.K. Mitter and A. Maro, editors, *Nonlinear Filtering and Stochastic Control*, volume 972, 1982.
- [35] H. H. Kuo. *Gaussian Measures in Banach Spaces*, volume 463 of *Lecture Notes in Mathematics*. Springer-Verlag, 1975.
- [36] H. Kwakernaak. Filtering for system excited by Poisson white noise. *Lecture Notes in Economics and Mathematical Systems*, 107:468–492, 1974.
- [37] G. Leha and G. Ritter. On diffusion processes and their semigroups in Hilbert spaces with an application to interacting stochastic systems. *Annals of Probability*, 12:1077–1112, 1984.
- [38] M. Métivier. *Semimartingales*. Walter de Gruyter, Berlin, New York, 1982.

- [39] H. McKean. Propagation of chaos for a class of non-linear parabolic equations. *Lecture Series in Differential Equations*, 2:177–194, 1967.
- [40] I. Mitoma. Martingales of random distributions. *Memoirs Fac. Sci. Kyushu Univ.*, Ser. A 35(1):185–220, 1981.
- [41] I. Mitoma. Tightness of probabilities on $C([0,1],S')$ and $D([0,1],S')$. *Annals of Probability*, 11(4):989–999, 1983.
- [42] I. Mitoma. An ∞ -dimensional inhomogeneous Langevin's equation. *Journal of Functional Analysis*, 61:342–359, 1985.
- [43] K. R. Parthasarathy. *Probability Measures on Metric Spaces*. Academic Press, 1967.
- [44] S. Peszat. Large deviation principle for stochastic evolution equations. *Probability Theory and Related Fields*, 98:113–136, 1994.
- [45] G. Da Prato and J. Zabczyk. *Stochastic Equations in Infinite Dimensions*. Cambridge University Press, 1992.
- [46] S. Ramaswamy. Existence of random variables with values in the dual of a nuclear space. *Stochastic Analysis and Applications*, 5:53–60, 1987.
- [47] M. Reed and B. Simon. *Methods of Modern Mathematical Physics 1: Functional Analysis*. Academic Press, New York and London, 1972.
- [48] B. L. Rozovskii. *Stochastic Evolution Equations, Linear Theory and Applications to Nonlinear Filtering*. Kluwer, 1990.
- [49] T. Shiga and H. Tanaka. Central limit theorem for a system of Markovian particles with mean-field interactions. *Z. Wahrsch. verw. Gebiete*, 69:439–459, 1985.
- [50] R.B. Sowers. Large deviations for a reaction-diffusion equation with non-Gaussian perturbations. *Annals of Probability*, 20:504–537, 1992.
- [51] E.M. Stein. *Harmonic Analysis*. Princeton University Press, 1993.
- [52] D.W. Stroock. *An Introduction to the Theory of Large Deviations*. Springer-Verlag, 1984.
- [53] D.W. Stroock and S.R.S. Varadhan. *Multidimensional Diffusion Processes*. Springer-Verlag, 1979.
- [54] N. Tamai T. Futagami and M. Yatsuzuka. FEM coupled with LP for water pollution control. *Journal of the Hydraulics Division*, 102:881–897, 1976.

- [55] H. Tuckwell. *Stochastic Processes in the Neurosciences*. Society for Industrial and Applied Mathematics, Philadelphia, 1989.
- [56] J. B. Walsh. A stochastic model of neural response. *Advances in Applied Probability*, 13:231–281, 1981.
- [57] J. B. Walsh. An introduction to stochastic partial differential equations. *Lecture Notes in Mathematics*, 1180:265–439, 1984.
- [58] F.Y.M. Wan and H. Tuckwell. The response of a spatially distributed neuron to white noise current injection. *Biol Cybernetics*, 33:39–55, 1979.
- [59] D. Xia. *Measure and Integration Theory on Infinite-Dimensional Spaces*. Academic Press, 1972.
- [60] J. Xiong. Large deviations for diffusion processes in duals of nuclear spaces, 1995. To appear in *Applied Mathematics and Optimization*.
- [61] K. Yosida. *Function Analysis*. Springer-Verlag, Berlin, 6 edition, 1980.