1 Teaching Philosophy

I consider that well-prepared lectures, interaction with students and review of teaching material are indispensable aspects of a comprehensive perspective over one's discipline. Thus, besides a responsibility towards the ongoing exchange of knowledge and ideas in academia, teaching is often a rewarding challenge from my point of view.

Aiming at cultivating critical and independent thought, my teaching philosophy places emphasis on good understanding of concepts and fundamentals. To stimulate the students' interest and mathematical insight, my approach to giving lectures goes through first explaining the intuitive meaning of the results presented while elaborating on the logic underlying the arguments in the proof. Coming forth naturally, the main part of the lecture is devoted to presenting formal mathematical proofs and elucidating subtleties involved in making these arguments rigorous. One of the main objectives of my courses being that students become competent with their problem-solving skills, my assurance that they are properly equipped to achieve this goal is based upon these teaching principles.

In conclusion, I am an able speaker, a conscientious and skilled lecturer, keen to offer my services to teach and mentor students at your highly esteemed institution.

2 Indicative Teaching Topics with Bibliography

Probability

- Grimmett, G., & Stirzaker, D. (2001). Probability and random processes. Oxford UP
- Meester, R. (2008). A natural introduction to probability theory. Springer.
- Ross, S., & Peköz, E. (2007). A second course in probability. AMC.
- Feller, W. (2008) An introduction to probability theory and its applications. Vol. 1 & 2. John Wiley & Sons.

Stochastic Processes

- Norris, J. (1998). Markov chains. Cambridge university press.
- Lawler, G. (2006). Introduction to stochastic processes. CRC Press.
- Ross, S. (1996). Stochastic processes. John Wiley & Sons.
- Karlin, S. & Taylor, H. (1975). A first course in Stochastic Processes.

Statistical Inference

- Roussas, G. (2003). An introduction to probability and statistical inference. Academic Press.
- Dekking et.al. (2005). A Modern Introduction to Probability and Statistics: Understanding why and how. Springer.

- Martinez, W. & Martinez, A. (2007). Computational statistics handbook with MATLAB. CRC press

Mathematical Statistics

- Roussas, G. (1997). A course in mathematical statistics. Academic Press.
- Box, G., & Tiao, G. (2011). Bayesian inference in statistical analysis. John Wiley & Sons.
- Rohatgi, V., and Ehsanes S. (2011). An introduction to probability and statistics. John Wiley & Sons.

Markov Chains and Simulation

- Häggström, O. (2002). Finite Markov chains and algorithmic applications. Cambridge University Press.
- Brémaud, P. (2013). Markov chains: Gibbs fields, Monte Carlo simulation, and queues. Springer
- Kay, S. (2006). Intuitive probability and random processes using MATLAB. Springer

Measure-theoretic Probability (Graduate Level)

- Billingsley, P. (2008). Probability and measure. John Wiley & Sons.
- Ash, R. (2000). Probability and measure theory. Academic Press.
- Williams, D. (1991). Probability with martingales. Cambridge UP.
- Kallenberg, O. (2006). Foundations of modern probability. Springer
- Gut, A. (2006) Probability: A Graduate Course. Springer.
- Durrett, R. (2010). Probability: theory and examples. Cambridge UP.

Advanced Probability (Graduate Level)

- Liggett, T. (2010). Continuous time Markov processes: an introduction. AMS.
- Karlin, S., & Taylor, H. (1981). A second course in stochastic processes.
- Mörters, P., & Peres, Y. (2010). Brownian motion. Cambridge UP.
- Stroock D. (2005) An introduction to Markov processes, Springer.
- Lawler, G. (2010). Random walk and the heat equation. AMS.

Contemporary Topics in Probability (Postgraduate Level)

- Liggett, T. (2012). Interacting particle systems. Springer.
- Grimmett, G. (2010). Probability on graphs: random processes on graphs and lattices. Cambridge UP.