

Gallager, Robert G. *Stochastic Processes: Theory for Applications*. New York, NY: Cambridge University Press, 2013, 536 pp. \$85.00 (Hardbound).

This definitive textbook provides a solid introduction to discrete and continuous stochastic processes, tackling a complex field in a way that instills a deep understanding of the relevant mathematical principles, and develops an intuitive grasp of the way these principles can be applied to modeling real-world systems.

- Basic underlying principles and axioms are made clear from the start, and new topics are developed as needed, encouraging and enabling students to develop an instinctive grasp of the fundamentals.
- Mathematical proofs are made easy for students to understand and remember, helping them quickly learn how to choose and apply the best possible models to real-world situations.
- Includes a review of elementary probability theory; detailed coverage of Poisson, Gaussian and Markov processes; the basic elements of queueing theory; and theory and applications of inference, hypothesis testing, detection and estimation, in addition to more advanced topics.

Written by one of the world's leading information theorists, based on his 20 years' experience of teaching stochastic processes to graduate students, this is an exceptional resource for anyone looking to develop their understanding of stochastic processes.

Robert G. Gallager is a Professor Emeritus at MIT, and one of the world's leading information theorists. He is a Member of the US National Academy of Engineering, and the US National Academy of Sciences, and his numerous awards and honors include the IEEE Medal of Honour (1990) and the Marconi Prize (2003). He was awarded the MIT Graduate Student Teaching Award in 1993, and this book is based on 20 years' of experience of teaching this subject to students.