Interest rate modeling and the pricing of related derivatives remain subjects of increasing importance in financial mathematics and risk management. This book provides an accessible introduction to these topics by a step-by-step presentation of concepts with a focus on explicit calculations. Each chapter is accompanied with exercises and their complete solutions, making the book suitable for advanced undergraduate and graduate level students.

This second edition retains the main features of the first edition while incorporating a complete revision of the text as well as additional exercises with their solutions, and a new introductory chapter on credit risk. The stochastic interest rate models considered range from standard short rate to forward rate models, with a treatment of the pricing of related derivatives such as caps and swaptions under forward measures. Some more advanced topics including the BGM model and an approach to its calibration are also covered.