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	Nota di contenuto	1 Real valued affine diffusions -- 2 An introduction to simulation schemes for SDEs -- 3 Simulation of the CIR process -- 4 The Heston model and multidimensional affine diffusions -- 5 Wishart processes and affine diffusions on positive semidefinite matrices -- 6 Processes of Wright-Fisher type -- 7 Appendix A Some results on matrices -- 8 Appendix B Simulation of a gamma random variable.

Sommario/riassunto	This book gives an overview of affine diffusions, from Ornstein-Uhlenbeck processes to Wishart processes and it considers some related diffusions such as Wright-Fisher processes. It focuses on different simulation schemes for these processes, especially second-order schemes for the weak error. It also presents some models, mostly in the field of finance, where these methods are relevant and provides some numerical experiments. The book explains the mathematical background to understand affine diffusions and analyze the accuracy of the schemes. .