

1. Record Nr.	UNINA9910254061203321
Autore	Gómez Víctor
Titolo	Multivariate time series with linear state space structure // by Víctor Gómez
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-28599-8
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (553 p.)
Disciplina	519.5
Soggetti	Statistics Probabilities Econometrics Statistical Theory and Methods Statistics and Computing/Statistics Programs Probability Theory and Stochastic Processes Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences Statistics for Business, Management, Economics, Finance, Insurance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Preface -- Computer Software -- Orthogonal Projection -- Linear Models -- Stationarity and Linear Time Series Models -- The State Space Model -- Time Invariant State Space Models -- Time Invariant State Space Models With Inputs -- Wiener–Kolmogorov Filtering and Smoothing -- SSMMATLAB -- Bibliography -- Author Index -- Subject Index.
Sommario/riassunto	This book presents a comprehensive study of multivariate time series with linear state space structure. The emphasis is put on both the clarity of the theoretical concepts and on efficient algorithms for implementing the theory. In particular, it investigates the relationship between VARMA and state space models, including canonical forms. It also highlights the relationship between Wiener-Kolmogorov and Kalman filtering both with an infinite and a finite sample. The strength of the book also lies in the numerous algorithms included for state

space models that take advantage of the recursive nature of the models. Many of these algorithms can be made robust, fast, reliable and efficient. The book is accompanied by a MATLAB package called SSMMATLAB and a webpage presenting implemented algorithms with many examples and case studies. Though it lays a solid theoretical foundation, the book also focuses on practical application, and includes exercises in each chapter. It is intended for researchers and students working with linear state space models, and who are familiar with linear algebra and possess some knowledge of statistics.

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