

1. Record Nr.	UNINA9910438030503321
Autore	Kharin IU. S.
Titolo	Robustness in Statistical Forecasting // by Yuriy Kharin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2013
ISBN	3-319-00840-4
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (369 p.)
Disciplina	330.015195 519 519.2 519.5
Soggetti	Statistics Probabilities Engineering mathematics Engineering - Data processing Statistical Theory and Methods Probability Theory Statistics in Business, Management, Economics, Finance, Insurance Statistics in Engineering, Physics, Computer Science, Chemistry and Earth Sciences Mathematical and Computational Engineering Applications
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 index.
Nota di contenuto	Preface -- Symbols and Abbreviations -- Introduction -- A Decision-Theoretic Approach to Forecasting -- Time Series Models of Statistical Forecasting -- Performance and Robustness Characteristics in Statistical Forecasting -- Forecasting under Regression Models of Time Series -- Robustness of Time Series Forecasting Based on Regression Models -- Optimality and Robustness of ARIMA Forecasting -- Optimality and Robustness of Vector Autoregression Forecasting under Missing Values -- Robustness of Multivariate Time Series Forecasting Based on Systems of Simultaneous Equations -- Forecasting of Discrete Time Series -- Index.

Sommario/riassunto

Traditional procedures in the statistical forecasting of time series, which are proved to be optimal under the hypothetical model, are often not robust under relatively small distortions (misspecification, outliers, missing values, etc.), leading to actual forecast risks (mean square errors of prediction) that are much higher than the theoretical values. This monograph fills a gap in the literature on robustness in statistical forecasting, offering solutions to the following topical problems: - developing mathematical models and descriptions of typical distortions in applied forecasting problems; - evaluating the robustness for traditional forecasting procedures under distortions; - obtaining the maximal distortion levels that allow the “safe” use of the traditional forecasting algorithms; - creating new robust forecasting procedures to arrive at risks that are less sensitive to definite distortion types. .
