

1. Record Nr.	UNISA996445849203316
Titolo	Model Order Reduction . Volume 1 System- and Data-Driven Methods and Algorithms // ed. by Peter Benner
Pubbl/distr/stampa	Berlin ; ; Boston : , : De Gruyter, , [2021] ©2021
ISBN	3-11-049896-0
Descrizione fisica	1 online resource (X, 378 p.)
Collana	Model Order Reduction ; ; Volume 1
Disciplina	515.353
Soggetti	MATHEMATICS / Numerical Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Frontmatter -- Preface to the first volume of Model Order Reduction -- Contents -- 1 Model order reduction: basic concepts and notation -- 2 Balancing-related model reduction methods -- 3 Model order reduction based on moment-matching -- 4 Modal methods for reduced order modeling -- 5 Post-processing methods for passivity enforcement -- 6 The Loewner framework for system identification and reduction -- 7 Manifold interpolation -- 8 Vector fitting -- 9 Kernel methods for surrogate modeling -- 10 Kriging: methods and applications -- Index
Sommario/riassunto	An increasing complexity of models used to predict real-world systems leads to the need for algorithms to replace complex models with far simpler ones, while preserving the accuracy of the predictions. This two-volume handbook covers methods as well as applications. This first volume focuses on real-time control theory, data assimilation, real-time visualization, high-dimensional state spaces and interaction of different reduction techniques.