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| 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. |