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Autore	Meister Andreas
Titolo	Numerical Methods for Linear Systems of Equations : An Introduction to Modern Methods With MATLAB® Implementations by C. Vömel / / by Andreas Meister
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Sommario/riassunto	The aim of this book is to provide a comprehensive introduction to solving large systems of equations. In addition to direct algorithms, it presents a wide range of classical and modern solvers – from splitting methods and multigrid techniques to current Krylov subspace methods (CG, GMRES, BiCGSTAB, etc.). These methods are discussed both mathematically and in terms of their practical applications. The book also offers an in-depth treatment of preconditioning techniques to accelerate existing methods. The book covers all the necessary fundamentals, making it highly suitable for self-study. The presentation of the derived algorithms allows for straightforward implementation in any programming language. Detailed MATLAB® implementations of common Krylov methods are included in the appendix. Solutions and additional materials are available online. This book is a translation of the original German 6th edition. The translation was done with the help of an artificial intelligence machine translation tool. A subsequent human revision was done primarily in terms of

content, so that the book may read stylistically differently from a conventional translation. The Author Prof. Dr. Andreas Meister is a professor of Applied Mathematics at the University of Kassel, where he teaches students of mathematics and engineering as well as future teachers. His research focuses on numerical methods for real-world problems. He has received several awards, including the Kurt-Hartwig-Siemers Research Prize from the Hamburg Scientific Foundation, the Mentorship Award from the Claussen-Simon Foundation, multiple “Lecturer of the Semester” honors, and the Teaching Excellence Award of the federal state of Hesse, Germany.
