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   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto 1 Notes to the Reader -- 2 Mathematical Background -- 3 Multilevel
                     Toeplitz Sequences -- 4 Multilevel Locally Toeplitz Sequences -- 5
                     Multilevel Generalized Locally Toeplitz Sequences -- 6 Summary of the
                     Theory -- 7 Applications -- 8 Future Developments.

   Sommario/riassunto Based on the authors' research experience, this two-volume reference
                     textbook focuses on the theory of generalized locally Toeplitz
                     sequences and its applications. The first volume discusses the
                     univariate version of the theory and the related applications in the
                     unidimensional setting, while this second volume, which addresses the
                     multivariate case, is mainly devoted to concrete PDE applications. This
                     book systematically develops the multivariate version of the theory of

generalized locally Toeplitz (GLT) sequences and presents some of its main applications to the numerical discretization of partial differential equations (PDEs). Written for applied mathematicians, engineers, physicists, and scientists who (perhaps unknowingly) encounter GLT sequences in their research, it is also of interest to those working in the fields of Fourier and functional analysis, spectral analysis of PDE discretization matrices, matrix analysis, numerical analysis, linear and multilinear algebra. Further, it can be used as a textbook for graduate or advanced undergraduate courses in numerical analysis.