1. Record Nr. UNISA996466576603316 Autore Kozlov Vladimir <1954-> Titolo Theory of a higher order Sturm-Liouville equation / / Vladimir Kozlov, Vladimir Maz'ya Pubbl/distr/stampa Berlin, Heidelberg:,: Springer-Verlag,, [1997] ©1997 **ISBN** 3-540-69122-7 Edizione [1st ed. 1997.] 1 online resource (XII, 144 p.) Descrizione fisica Collana Lecture Notes in Mathematics:: 1659 Disciplina 515.35 Soggetti Sturm-Liouville equation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto Basic equation with constant coefficients -- The operator M(? t) on a semiaxis and an interval -- The operator M(? t)??0 with constant ?0 --Green's function for the operator M(? t)??(t) -- Uniqueness and solvability properties of the operator M(? t ??(t) -- Properties of M(? t ?? (t) under various assumptions about ?(t) -- Asymptotics of solutions at infinity -- Application to ordinary differential equations with operator coefficients. Sommario/riassunto This book develops a detailed theory of a generalized Sturm-Liouville Equation, which includes conditions of solvability, classes of uniqueness, positivity properties of solutions and Green's functions, asymptotic properties of solutions at infinity. Of independent interest, the higher-order Sturm-Liouville equation also proved to have important applications to differential equations with operator coefficients and elliptic boundary value problems for domains with non-smooth boundaries. The book addresses graduate students and researchers in ordinary and partial differential equations, and is

accessible with a standard undergraduate course in real analysis.