Record Nr. UNINA9910254280603321 Autore **Gupta Vijay** Titolo Approximation with positive linear operators and linear combinations / / by Vijay Gupta, Gancho Tachev Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 **ISBN** 3-319-58795-1 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XIII, 186 p. 2 illus. in color.) Collana Developments in Mathematics, , 1389-2177; ; 50 Disciplina 511.4 Soggetti Approximation theory Numerical analysis Functional analysis Approximations and Expansions **Numerical Analysis Functional Analysis** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto 1. Moments and Linear Combinations of Positive Linear Operators -- 2. Direct Estimates for Approximation by Linear Combinations -- 3. Inverse Estimates and Saturation Results for Linear Combinations -- 4. Voronovskaja Type Estimates -- 5. Pointwise Estimates for Linear Combinations -- 6. Voronovskaja's Theorem in Terms of Weighted Modulus of Continuity -- 7. Direct Estimates for Some New Operators -- 8. Convergence for Operators Based on Pltanea Basis --Bibliography -- Index. . Sommario/riassunto This book presents a systematic overview of approximation by linear combinations of positive linear operators, a useful tool used to increase the order of approximation. Fundamental and recent results from the past decade are described with their corresponding proofs. The volume consists of eight chapters that provide detailed insight into the representation of monomials of the operators Ln, direct and inverse estimates for a broad class of positive linear operators, and case studies involving finite and unbounded intervals of real and complex functions. Strong converse inequalities of Type A in terminology of

Ditzian—Ivanov for linear combinations of Bernstein and Bernstein—Kantorovich operators and various Voronovskaja-type estimates for some linear combinations are analyzed and explained. Graduate students and researchers in approximation theory will find the list of open problems in approximation of linear combinations useful. The book serves as a reference for graduate and postgraduate courses as well as a basis for future study and development.