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Nota di contenuto	Contents; Preface; 1. Bernstein-Type Operators of One Complex Variable; 1.0 Auxiliary Results in Complex Analysis; 1.1 Bernstein Polynomials; 1.1.1 Bernstein Polynomials on Compact Disks; 1.1.2 Bernstein-Faber Polynomials on Compact Sets; 1.2 Iterates of Bernstein Polynomials; 1.3 Generalized Voronovskaja Theorems for Bernstein Polynomials; 1.4 Butzer's Linear Combination of Bernstein Polynomials; 1.5 q-Bernstein Polynomials; 1.6 Bernstein-Stancu Polynomials; 1.7 Bernstein-Kantorovich Type Polynomials; 1.8 Favard-Sz asz-Mirakjan Operators; 1.9 Baskakov Operators 1.10 Bal azs-Szabados Operators1.11 Bibliographical Notes and Open Problems; 2. Bernstein-Type Operators of Several Complex Variables; 2.1 Introduction; 2.2 Bernstein Polynomials; 2.3 Favard-Sz asz-Mirakjan Operators; 2.4 Baskakov Operators; 2.5 Bibliographical Notes and Open Problems; 3. Complex Convolutions; 3.1 Linear Polynomial Convolutions; 3.2 Linear Non-Polynomial Convolutions; 3.2.1 Picard, Poisson-Cauchy and Gauss-Weierstrass Complex Convolutions; 3.2.2 Complex q-Picard and q-Gauss-Weierstrass Singular Integrals; 3.2.3 Post-Widder Complex Convolution

3.2.4 Rotation-Invariant Complex Convolutions; 3.2.5 Sikkema Complex Convolutions; 3.3 Nonlinear Complex Convolutions; 3.4 Bibliographical Notes and Open Problems; 4. Appendix : Related Topics; 4.1 Bernstein Polynomials of Quaternion Variable; 4.2 Approximation of Vector-Valued Functions; 4.2.1 Real Variable Case; 4.2.2 Complex Variable Case; 4.3 Strong Approximation by Complex Taylor Series; 4.4 Bibliographical Notes and Open Problems; Bibliography; Index

Sommario/riassunto

The monograph, as its first main goal, aims to study the overconvergence phenomenon of important classes of Bernstein-type operators of one or several complex variables, that is, to extend their quantitative convergence properties to larger sets in the complex plane rather than the real intervals. The operators studied are of the following types: Bernstein, Bernstein-Faber, Bernstein-Butzer, q -Bernstein, Bernstein-Stancu, Bernstein-Kantorovich, Favard-Szasz-Mirakjan, Baskakov and Balazs-Szabados. The second main objective is to provide a study of the approximation and geometric proper
