Record Nr. UNINA9910674390103321 Numerical Analysis or Numerical Method in Symmetry / / edited by **Titolo** Clemente Cesarano Pubbl/distr/stampa Basel:,: MDPI - Multidisciplinary Digital Publishing Institute,, 2020 Descrizione fisica 1 online resource (194 pages): illustrations 519.4 Disciplina Soggetti Numerical analysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Sommario/riassunto This Special Issue focuses mainly on techniques and the relative formalism typical of numerical methods and therefore of numerical analysis, more generally. These fields of study of mathematics represent an important field of investigation both in the field of applied mathematics and even more exquisitely in the pure research of the theory of approximation and the study of polynomial relations as well as in the analysis of the solutions of the differential equations both ordinary and partial derivatives. Therefore, a substantial part of research on the topic of numerical analysis cannot exclude the fundamental role played by approximation theory and some of the tools used to develop this research. In this Special Issue, we want to draw attention to the mathematical methods used in numerical analysis, such as special functions, orthogonal polynomials, and their theoretical tools, such as Lie algebra, to study the concepts and properties of some special and advanced methods, which are useful in the description of solutions of linear and nonlinear differential

numerical methods.

equations. A further field of investigation is dedicated to the theory and related properties of fractional calculus with its adequate application to