Título:

Autor:

Editorial:

Tema:

Sinopsis

Precio: $551.36

Año: 2012

Edición: 1ª

ISBN: 9784864970167

In this book we give a unified interpretation of confluences, contiguity relations and Katz's middle convolutions for linear ordinary differential equations with polynomial coefficients and their generalization to partial differential equations. The integral representations and series expansions of their solutions are also within our interpretation. As an application to Fuchsian differential equations on the Riemann sphere, we construct a universal model of Fuchsian differential equations with a given spectral type, in particular, we construct a single ordinary differential equation without apparent singularities corresponding to any rigid local system on the Riemann sphere, whose existence was an open problem presented by N. Katz.
Furthermore we obtain fundamental properties of the solutions of the rigid Fuchsian differential equations such as their connection coefficients and the necessary and sufficient condition for the irreducibility of their monodromy groups. We give many examples calculated by our fractional calculus