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Sommario/riassunto	The book deals with qualitative analysis of the mathematical model of flow of a viscous incompressible fluid around a translating and rotating body. The considered mathematical model, which represents the description of the flow in a coordinate system attached to the body, is

derived from the Navier–Stokes equations by means of an appropriate transformation. The core of the book is the mathematical theory of the transformed equations. Most of the text is devoted to the theory of the linearized versions of these equations (i.e. the Stokes- and Oseen-type equations), because they play a fundamental role in the theory of the complete nonlinear system. Considering strong, weak, and very weak solutions, we present the L2 and Lq theories and the weighted space theory (with Muckenhaupt's weights) in the whole space and in an exterior domain. The book also contains the spectral analysis of the associated linear Stokes-Oseen-type operators and the information on semigroups generated by these operators, and related resolvent estimates. Moreover, the book describes the asymptotic behavior of solutions and leading profiles of solutions for linear and as well as nonlinear systems. Further, the book contains studies of the problem with artificial boundary (important in numerical analysis), an introduction to the theory of the corresponding complete nonlinear system in both steady and nonsteady cases, a brief description of the situation when the rotation is not parallel to the velocity at infinity and necessary estimates of the related Oseen kernels.