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Nota di contenuto	Preface -- The Classical Notions of Foliations -- Some Results from Several Complex Variables -- Holomorphic Foliations: Nonsingular Case -- Holomorphic Foliations with Singularities -- Holomorphic Foliations Given by Closed 1-Forms -- Reduction of Singularities -- Holomorphic First Integrals -- Dynamics of a Local Diffeomorphism -- Foliations on Complex Projective Spaces -- Foliations with Algebraic Limit Sets -- Some Modern Questions -- Miscellaneous exercises and some open questions.
Sommario/riassunto	This concise textbook gathers together key concepts and modern results on the theory of holomorphic foliations with singularities, offering a compelling vision on how the notion of foliation, usually linked to real functions and manifolds, can have an important role in the holomorphic world, as shown by modern results from mathematicians as H. Cartan, K. Oka, T. Nishino, and M. Suzuki. The text starts with a gentle presentation of the classical notion of foliations, advancing to holomorphic foliations and then holomorphic foliations with singularities. The theory behind reduction of

singularities is described in detail, as well the cases for dynamics of a local diffeomorphism and foliations on complex projective spaces. A final chapter brings recent questions in the field, as holomorphic flows on Stein spaces and transversely homogeneous holomorphic foliations, along with a list of open questions for further study and research. Selected exercises at the end of each chapter help the reader to grasp the theory. Graduate students in Mathematics with a special interest in the theory of foliations will especially benefit from this book, which can be used as supplementary reading in Singularity Theory courses, and as a resource for independent study on this vibrant field of research.