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Collana	Princeton series in theoretical and computational biology
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- Preface and Acknowledgments -- Introduction -- Part I. Genetic Variation -- 1. Genetics -- 2. Conservation of Variation -- 3. Diploid Populations -- 4. Mutation and Variation -- 5. Migration -- 6. Linkage -- 7. Phenotypic Variation -- Part II. Variation and Selection -- 8. Effects of Selection -- 9. Genomic Effects of Selection -- 10. Population Structure -- A. Probability Theory and Statistics -- B. Solutions to Exercises -- Bibliography -- Index
Sommario/riassunto	This textbook provides an authoritative introduction to both classical and coalescent approaches to population genetics. Written for graduate students and advanced undergraduates by one of the world's leading authorities in the field, the book focuses on the theoretical background of population genetics, while emphasizing the close interplay between theory and empiricism. Traditional topics such as genetic and phenotypic variation, mutation, migration, and linkage are covered and advanced by contemporary coalescent theory, which describes the genealogy of genes in a population, ultimately connecting them to a single common ancestor. Effects of selection, particularly genomic effects, are discussed with reference to molecular genetic variation. The book is designed for students of population genetics, bioinformatics, evolutionary biology, molecular evolution, and theoretical biology--as well as biologists, molecular biologists, breeders, biomathematicians, and biostatisticians. Contains up-to-date treatment of key areas in

classical and modern theoretical population genetics Provides in-depth coverage of coalescent theory Discusses genomic effects of selection Gives examples from empirical population genetics Incorporates figures, diagrams, and boxed features throughout Includes end-of-chapter exercises Speaks to a wide range of students in biology, bioinformatics, and biostatistics