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Titolo	Genetics and genomics of rice / / Qifa Zhang, Rod A. Wing, editors
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Descrizione fisica	1 online resource (406 p.)
Collana	Plant genetics and genomics: crops and models ; ; 5
Altri autori (Persone)	ZhangQifa WingRod A
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A reference rice genome sequence in the 10K genome era -- The Wild Relative of Rice – Genomes and Genomics -- Natural variation and sequencing-based genetics studies in rice -- Genome mapping, markers and QTLs -- Transposable element dynamics in rice and its wild relatives -- Molecular cytogenetics of rice and its wild relatives -- Mutant resources for functional analysis of the rice genome -- Transcriptome profiling in rice -- Epigenomics of rice -- Non-coding regulatory RNAs -- Disease resistance -- Insect Resistance -- Abiotic stress resistance -- Nitrogen and Phosphorus Uptake and Utilization -- Yield -- Understanding Genetic Molecular Basis of Rice Grain Quality -- Advances in the Understanding of Genetic and Molecular Basis of Heterosis in Rice -- Flowering -- Panicle Development -- Root Development -- Reproductive isolation between indica and japonica subspecies -- Genomics-based breeding technology -- Utilization of Exotic Germplasm -- Transformation and transgenic breeding.
Sommario/riassunto	This book provides a comprehensive coverage of the advances in genetics and genomics research on rice. The chapters feature the latest developments in rice research and cover such topics as the tools and resources for the functional analysis of rice genes, the identification of useful genes for rice improvement, the present understanding of rice development and biological processes, and the application of this present understanding towards rice improvement. The volume also

features a perspective on synthesis and prospects, laying the groundwork for future advances in rice genetics and genomics. Written by authorities in the field, Genetics and Genomics of Rice will serve as an invaluable reference for rice researchers for years to come.