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Nota di contenuto	Front matter -- Preface -- Contents -- 1. Some background on Lie algebras -- 2. The higher genus algebras -- 3. The almost-grading -- 4. Fixing the basis elements -- 5. Explicit expressions for a system of generators -- 6. Central extensions of Krichever-Novikov type algebras -- 7. Semi-infinite wedge forms and fermionic Fock space representations -- 8. b c systems -- 9. Affine algebras -- 10. The Sugawara construction -- 11. Wess-Zumino-Novikov-Witten models and Knizhnik-Zamolodchikov connection -- 12. Degenerations and deformations -- 13. Lax operator algebras -- 14. Some related developments -- Bibliography -- Index
Sommario/riassunto	Krichever and Novikov introduced certain classes of infinite dimensional Lie algebras to extend the Virasoro algebra and its related algebras to Riemann surfaces of higher genus. The author of this book generalized and extended them to a more general setting needed by the applications. Examples of applications are Conformal Field Theory, Wess-Zumino-Novikov-Witten models, moduli space problems, integrable systems, Lax operator algebras, and deformation theory of Lie algebra. Furthermore they constitute an important class of infinite dimensional Lie algebras which due to their geometric