1. Record Nr. UNINA9910462699003321 Autore Jarnicki Marek Titolo Invariant distances and metrics in complex analysis / / Marek Jarnicki, Peter Pflug Pubbl/distr/stampa Berlin; ; Boston:,: De Gruyter,, [2013] ©2013 Edizione [Second extended edition.] Descrizione fisica 1 online resource (880 p.) Collana De Gruyter Expositions in Mathematics: 9 De Gruyter expositions in mathematics, , 0938-6572;; 9 Altri autori (Persone) PflugPeter <1943-> Disciplina 514/.325 Soggetti Functions of complex variables Invariants Metric spaces **Pseudodistances** Electronic books. Lingua di pubblicazione Inglese

**Formato** Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references (pages 814-843) and index.

Nota di contenuto Front matter -- Preface to the second edition -- Preface to the first

> edition -- Contents -- Chapter 1. Hyperbolic geometry of the unit disc -- Chapter 2. The Carathéodory pseudodistance and the Carathéodory-Reiffen pseudometric -- Chapter 3. The Kobayashi pseudodistance and the Kobayashi-Royden pseudometric -- Chapter 4. Contractible systems -- Chapter 5. Properties of standard contractible systems --Chapter 6. Elementary Reinhardt domains -- Chapter 7. Symmetrized polydisc -- Chapter 8. Non-standard contractible systems -- Chapter 9. Contractible functions and metrics for the annulus -- Chapter 10. Elementary n-circled domains III -- Chapter 11. Complex geodesics. Lempert's theorem -- Chapter 12. The Bergman metric -- Chapter 13. Hyperbolicity -- Chapter 14. Completeness -- Chapter 15. Bergman completeness -- Chapter 16. Complex geodesics - effective examples -- Chapter 17. Analytic discs method -- Chapter 18. Product property -- Chapter 19. Comparison on pseudoconvex domains -- Chapter 20. Boundary behavior of invariant functions and metrics on general domains -- Appendix A. Miscellanea -- Appendix B. Addendum --

Appendix C. List of problems -- Bibliography -- List of symbols -- Index

## Sommario/riassunto

As in the field of "Invariant Distances and Metrics in Complex Analysis" there was and is a continuous progress this is now the second extended edition of the corresponding monograph. This comprehensive book is about the study of invariant pseudodistances (non-negative functions on pairs of points) and pseudometrics (nonnegative functions on the tangent bundle) in several complex variables. It is an overview over a highly active research area at the borderline between complex analysis, functional analysis and differential geometry. New chapters are covering the Wu, Bergman and several other metrics. The book considers only domains in Cn and assumes a basic knowledge of several complex variables. It is a valuable reference work for the expert but is also accessible to readers who are knowledgeable about several complex variables. Each chapter starts with a brief summary of its contents and continues with a short introduction. It ends with an "Exercises" and a "List of problems" section that gathers all the problems from the chapter. The authors have been highly successful in giving a rigorous but readable account of the main lines of development in this area.