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Collana	Graduate Texts in Mathematics, , 0072-5285 ; ; 156
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Soggetti	Mathematical logic Topology Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"With 34 illustrations."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	I Polish Spaces -- 1. Topological and Metric Spaces -- 2. Trees -- 3. Polish Spaces -- 4. Compact Metrizable Spaces -- 5. Locally Compact Spaces -- 6. Perfect Polish Spaces -- 7. Zero-dimensional Spaces -- 8. Baire Category -- 9. Polish Groups -- II Borel Sets -- 10. Measurable Spaces and Functions -- 11. Borel Sets and Functions -- 12. Standard Borel Spaces -- 13. Borel Sets as Clopen Sets -- 14. Analytic Sets and the Separation Theorem -- 15. Borel Injections and Isomorphisms -- 16. Borel Sets and Baire Category -- 17. Borel Sets and Measures -- 18. Uniformization Theorems -- 19. Partition Theorems -- 20. Borel Determinacy -- 21. Games People Play -- 22. The Borel Hierarchy -- 23. Some Examples -- 24. The Baire Hierarchy -- III Analytic Sets -- 25. Representations of Analytic Sets -- 26. Universal and Complete Sets -- 27. Examples -- 28. Separation Theorems -- 29. Regularity Properties -- 30. Capacities -- 31. Analytic Well-founded Relations -- IV Co-Analytic Sets -- 32. Review -- 33. Examples -- 34. Co-Analytic Ranks -- 35. Rank Theory -- 36. Scales and Uniformization -- V Projective Sets -- 37. The Projective Hierarchy -- 38. Projective Determinacy -- 39. The Periodicity Theorems -- 40. Epilogue -- Appendix A. Ordinals and Cardinals -- Appendix B. Well-founded Relations -- Appendix C. On Logical Notation -- Notes and Hints -- References -- Symbols and Abbreviations.

Descriptive set theory has been one of the main areas of research in set theory for almost a century. This text attempts to present a largely balanced approach, which combines many elements of the different traditions of the subject. It includes a wide variety of examples, exercises (over 400), and applications, in order to illustrate the general concepts and results of the theory. This text provides a first basic course in classical descriptive set theory and covers material with which mathematicians interested in the subject for its own sake or those that wish to use it in their field should be familiar. Over the years, researchers in diverse areas of mathematics, such as logic and set theory, analysis, topology, probability theory, etc., have brought to the subject of descriptive set theory their own intuitions, concepts, terminology and notation.
