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Sommario/riassunto	This textbook is intended to be accessible to any second-year undergraduate in mathematics who has attended courses on basic real analysis and linear algebra. It is meant to help students to appreciate the diverse specialized mathematics courses offered at their universities. Special emphasis is on similarities between mathematical fields and ways to compare them. The organizing principle is the concept of a mathematical structure which plays an important role in all areas of mathematics. The mathematical content used to explain the

structural ideas covers in particular material that is typically taught in algebra and geometry courses. The discussion of ways to compare mathematical fields also provides introductions to categories and sheaves, whose ever-increasing role in modern mathematics suggests a more prominent role in teaching. The Author Joachim Hilgert is a retired professor of mathematics at the University of Paderborn. The book is the English translation of the second edition of “Mathematische Strukturen” (Springer, 2024) written in German. The translation was done with the help of artificial intelligence. A subsequent human revision was done primarily in terms of content. .