

Real Algebraic Varieties

This book gives a systematic presentation of real algebraic varieties.

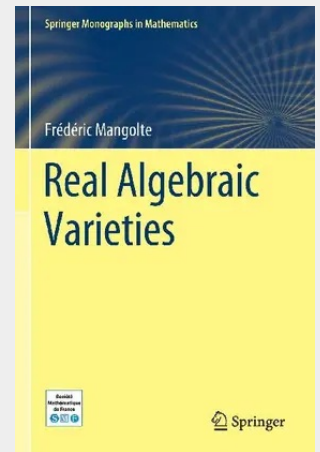
Real algebraic varieties are ubiquitous. They are the first objects encountered when learning of coordinates, then equations, but the systematic study of these objects, however elementary they may be, is formidable.

This book is intended for two kinds of audiences: it accompanies the reader, familiar with algebra and geometry at the masters level, in learning the basics of this rich theory, as much as it brings to the most advanced reader many fundamental results often missing from the available literature, the "folklore". In particular, the introduction of topological methods of the theory to non-specialists is one of the original features of the book.

The first three chapters introduce the basis and classical methods of real and complex algebraic geometry. The last three chapters each focus on one more specific aspect of real algebraic varieties. A panorama of classical knowledge is presented, as well as major developments of the last twenty years in the topology and geometry of varieties of dimension two and three, without forgetting curves, the central subject of Hilbert's famous sixteenth problem.

Various levels of exercises are given, and the solutions of many of them are provided at the end of each chapter.

This book gives a systematic presentation of real algebraic varieties. Real algebraic varieties are ubiquitous. They are the first objects encountered when learning of coordinates, then equations, but the systematic study of these objects, however elementary they may be, is formidable. This book is intended for two kinds of audiences: it accompanies the reader, familiar with algebra and geometry at the masters level, in learning the basics of this rich theory, as much as it brings to the most advanced reader many fundamental results often missing from the available literature, the "folklore". In particular, the introduction of topological methods of the theory to non-specialists is one of the original features of the book. The first three chapters introduce the basis and classical methods of real and complex algebraic geometry. The last three chapters each focus on one more specific aspect of real algebraic varieties. A panorama of classical knowledge is presented, as well as major developments of the last twenty years in the topology and geometry of varieties of dimension two and three, without forgetting curves, the central subject of Hilbert's famous sixteenth problem. Various levels of exercises are given, and the solutions of many of them are provided at the end of each chapter.



128,39 €

119,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783030431068

Medium: Buch

ISBN: 978-3-030-43106-8

Verlag: Springer

Erscheinungstermin: 23.09.2021

Sprache(n): Englisch

Auflage: 1. Auflage 2020

Serie: Springer Monographs in Mathematics

Produktform: Kartoniert

Gewicht: 698 g

Seiten: 444

Format (B x H): 155 x 235 mm

