

1. Record Nr.	UNINA9910739449003321
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Titolo	A Guide to Penrose Tilings // by Francesco D'Andrea
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-28428-3
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (203 pages)
Disciplina	516.132
Soggetti	Convex geometry Discrete geometry Algebraic geometry Convex and Discrete Geometry Algebraic Geometry Mosaics (Matemàtica) Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Tilings and puzzles -- Robinson triangles -- Penrose tilings -- De Bruijn's pentagrids -- The noncommutative space of Penrose tilings.-Some useful formulas.
Sommario/riassunto	This book provides an elementary introduction, complete with detailed proofs, to the celebrated tilings of the plane discovered by Sir Roger Penrose in the '70s. Quasi-periodic tilings of the plane, of which Penrose tilings are the most famous example, started as recreational mathematics and soon attracted the interest of scientists for their possible application in the description of quasi-crystals. The purpose of this survey, illustrated with more than 200 figures, is to introduce the curious reader to this beautiful topic and be a reference for some proofs that are not easy to find in the literature. The volume covers many aspects of Penrose tilings, including the study, from the point of view of Connes' Noncommutative Geometry, of the space parameterizing these tilings.