1. Record Nr. UNISA996386767703316

Autore	Raleigh Walter, Sir, <1552?-1618.>
Titolo	The cabinet-council [[electronic resource]] : containing the cheif [sic] arts of empire and mysteries of state : discabineted in political and polemical aphorisms grounded on authority, and experience : and illustrated with the choicest examples and historical observations / / by the ever-renowned knight, Sir Walter Raleigh ; published by John Milton, Esq
Pubbl/distr/stampa	London, : Printed by Tho. Newcomb for Tho. Johnson ..., 1658
Descrizione fisica	[9], 199 p. : port
Altri autori (Persone)	MiltonJohn <1608-1674.>
Soggetti	Political science Monarchy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	First ed., with "To the reader" signed: John Milton. Cf. NUC pre-1956. Published in 1661 as: Aphorisms of state, grounded on authority and experience; in 1692 as: The arts of empire, and mysteries of state discabineted; in 1697 as: The secrets of government, and misteries of state. For other issues under different titles see: Brushfield, T.N. Bibliography of Sir Walter Raleigh, 1908, [no.] 268. Reproduction of original in Yale University Library.
Sommario/riassunto	eebo-0198

2. Record Nr. UNINA9910647393203321

Autore	Quadrelli Davide Enrico
Titolo	Acoustic Invisibility for Elliptic Objects : Theory and Experiments for Underwater Sound / / by Davide Enrico Quadrelli, Francesco Braghin
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-22603-8
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (93 pages)
Collana	PoliMI SpringerBriefs, , 2282-2585
Disciplina	620.2 620.25
Soggetti	Building materials Acoustical engineering Metamaterials Underwater acoustics Sound Structural Materials Engineering Acoustics Acoustics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Contents -- 1 Introduction and State of the Art -- References -- 2 Wave Propagation in Periodic Media -- 2.1 Acoustic Waves in Fluids -- 2.2 Elastic Waves in Homogeneous, Isotropic Solids -- 2.3 Elastic Waves in Homogenous, Anisotropic Media -- 2.4 Wave Propagation in Sonic Crystals -- 2.5 Wave Propagation in Phononic Crystals -- 2.6 Long-Wavelength Homogenization -- 2.7 Further Readings -- References -- 3 Transformation Acoustics -- 3.1 Inertial Cloaking -- 3.2 Pentamode Materials and Pentamode Cloaking -- References -- 4 Transformation Acoustics in Elliptic Coordinates -- 4.1 Defining Transformations in Elliptic Coordinates -- 4.2 Selected Examples of Transformations in Elliptic Coordinates -- 4.2.1 Spatially Independent Elasticity Tensor -- 4.2.2 Bulk Moduli Following a Power Law -- 4.2.3 Spatially Independent Density -- 4.3 Numerical Test Cases -- References -- 5 Design and Experimental Validation of an Elliptic Cloak -- 5.1 Problem Setting -- 5.2 Microstructure Design and

Validation -- 5.3 Experimental Setup -- 5.4 Results and Discussion -- References.

Sommario/riassunto

The book investigates acoustic cloaking for elliptical targets, starting from the development of a systematic approach to deal with such non-axisymmetrical shapes by adopting transformation acoustics in elliptic coordinates, and concluding with numerical and experimental validation of a microstructured cloak in the underwater environment. The book thus comprises all the steps from theory to practice that led to the first experimental validation of acoustic invisibility for non-cylindrical objects, whose results are presented in the last chapter. Indeed, despite Transformation Theory is now an established tool to design material distributions capable to unlock the design of invisibility devices, it is not trivial to apply it for shapes different than the sphere and the cylinder, which are thus the ones mainly addressed in the literature. This book paves the way for exploration of other shapes, demonstrating the effectiveness of a pentamode cloak in reducing the acoustic visibility of an elliptical target, and discussing design choices that can make the implementation of the required microstructure less cumbersome despite the lack of axial symmetry of the problem, from both the numerical and manufacturing point of views.