

1. Record Nr.	UNINA9910811708603321
Autore	Arnold Ronald N.
Titolo	Gyrodynamics and its engineering applications / / Ronald N. Arnold, Leonard Maunder
Pubbl/distr/stampa	New York ; ; London : , : Academic Press, , 1961 ©1961
ISBN	1-4832-1614-4
Descrizione fisica	1 online resource (495 pages) : illustrations
Disciplina	531.34
Soggetti	Gyroscopes Gyroscopic instruments
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Front Cover; Gyrodynamics and Its Engineering Applications; Copyright Page; PREFACE; Table of Contents; CHAPTER 1. GENERAL INTRODUCTION; 1.1 History; 1.2 Introduction to Vectors; 1.3 Kinematics of a Particle; 1.4 Newton's Laws; 1.5 Rotating Systems; 1.6 Illustrative Examples; CHAPTER 2. KINEMATICS OF RIGID BODIES; 2.1 Products of Vectors; 2.2 Translation and Rotation; 2.3 Instantaneous Axis of Rotation; 2.4 Finite and Infinitesimal Rotations; 2.5 General Motion; CHAPTER 3. FRAMES OF REFERENCE; 3.1 Transformation of Vector Components; 3.2 Eulerian Angles; 3.3 Moving Axes; 3.4 Relative Motion 3.5 Illustrative Examples; CHAPTER 4. MOMENTS AND PRODUCTS OF INERTIA; 4.1 Definitions; 4.2 Transformation Theorems and Principal Axes; 4.3 Mohr's Circle; 4.4 Symmetric Bodies; 4.5 Experimental Measurements; CHAPTER 5. DYNAMICAL THEOREMS; 5.1 Linear and Angular Momentum; 5.2 General Equations of Motion; 5.3 Equations of Motion for Rigid Bodies; 5.4 Kinetic Energy; 5.5 Lagrange's Equations; 5.6 D'Alembert's Principle; CHAPTER 6. MOTION OF A FREE BODY; 6.1 Introduction; 6.3 Polhodes and Herpolhodes; 6.4 General Solution; 6.5 Axially-symmetric Bodies; CHAPTER 7. SYMMETRICAL GYROSCOPE UNDER GRAVITY 7.1 Introduction; 7.2 Equations of Motion; 7.3 Uniform Precession; 7.4 Nutation; 7.5 General Solution; CHAPTER 8. GYRODYNAMICS OF

MACHINES; 8.1 Effects of Coriolis Forces; 8.2 Spinning Discs and Rotors; 8.3 Rolling Wheels and Discs; 8.4 Grinding Mills; CHAPTER 9. GYROSCOPIC VIBRATION ABSORBERS AND STABILIZERS; 9.1 Introduction; 9.2 Historical Note; 9.3 Gyroscopic Control of Forced Vibration; 9.4 Gyroscopic Control of Self-excited and Free Vibration; 9.5 Stabilization of Ships; 9.6 The Monorail; CHAPTER 10. THE GYRO-COMPASS; 10.1 Introduction; 10.2 Foucault's Directional Gyroscope 10.3 Principle of Action of the Gyro -compass; 10.4 Mechanical Arrangement; 10.5 General Motion with Pendular Control; 10.6 The Mercury Ballistic; 10.7 General Motion with Mercury Ballistic; 10.8 Errors; 10.9 Effects at High Latitudes; CHAPTER 11. SUSPENSIONS FOR GYROSCOPES; 11.1 Introduction; 11.2 Rotor Drives and Bearings; 11.3 Single and Double Suspensions; 11.4 The Cardan Suspension and Hooke's Joint; 11.5 Gimbal Errors; 11.6 Dynamics of Gimbals; 11.7 Effect of Flexibility of Rotor Shaft; 11.8 Dynamics of a Platform supported in Gimbals; 11.9 Dynamics of a Rotor driven by a Hooke's Joint
CHAPTER 12. GYRO-VERTICALS; 12.1 Introduction; 12.2 The Gyro- pendulum; 12.3 Response to Vehicle Acceleration; 12.4 Effect of Gimbal Bearing Friction; 12.5 Response to Forced Vibration; 12.6 Practical Gyro-verticals; 12.7 Response to Vehicle Acceleration; 12.8 The Tilted-axis Gyro-vertical; 12.9 Mechanical Design; 12.10 Schuler Tuning of a Gyro-pendulum; CHAPTER 13. RATE AND INTEGRATING GYROSCOPES; 13.1 Introduction; 13.2 Single-axis Rate Gyroscopes; 13.3 Aircraft Turn-and-slip Indicator; 13.4 Floated Single-axis Gyroscopes; 13.5 A Two-axis Rate Gyroscope; 13.6 An Integrating Gyro-accelerometer; 13.7 A Vibratory Rate Gyroscope

2. Record Nr.	UNICAMPANIAVAN00278698
Titolo	Algebra without Borders-Classical and Constructive Nonassociative Algebraic Structures : Foundations and Applications / Mahouton Norbert Hounkonnou ... [et al.] editors
Pubbl/distr/stampa	Cham, : Springer, 2023
Descrizione fisica	xxxvii, 570 p. : ill. ; 24 cm
Soggetti	00B25 - Proceedings of conferences of miscellaneous specific interest [MSC 2020] 05-XX - Combinatorics [MSC 2020] 16-XX - Associative rings and algebras [MSC 2020] 17-XX - Nonassociative rings and algebras [MSC 2020]
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia