

# Fundamentals of Designing Strapdown Inertial Navigation Systems

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The experience in investigation, integration and operation of high-precision gas-lubricated bearings of gyroscopic devices is applied in many fields of engineering. In the light of the up-to-date trends of developing the applied gas-dynamic lubrication theory, its physical-mathematical and technical aspects are considered. Special attention is given to the critical analysis and improvement of computational models for different types of gas-lubricated bearings, to theoretical justification and practical application of design optimization methods for such bearings and to problems of their reliability control.

This book may be of interest for researchers involved in investigations in the field of the gas-dynamic lubrication theory, for design engineers of various machines and devices with gas-lubricated bearings, for students and post-graduates of the relevant specialties.