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Titolo	Quo Vadis: Evolution of Modern Navigation : The Rise of Quantum Techniques / / by F. G. Major
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Navigation in Nature -- 2. The Early Navigators -- 3. Historical Background to Astronomy -- 4. Modern Astronomy -- 5. Navigation at Sea -- 6. The Longitude Problem -- 7. The Quartz Revolution -- 8. Classical Atomic Frequency Standards -- 9. Atomic and Molecular Oscillators -- 10. Field Confinement of Ions -- 11. Optical Frequency Oscillators: Lasers -- 12. The Gyrocompass -- 13. Radio Navigation -- 14. Satellite Navigation: GPS Space Segment -- 15. Satellite Navigation: GPS Control Segment -- 16. Satellite Navigation: GPS User Segment -- 17. Space Navigation -- 18. The Future of Navigation.
Sommario/riassunto	Quo Vadis: Evolution of Modern Navigation presents an intelligent and intelligible account of the essential principles underlying the design of satellite navigational systems—with introductory chapters placing them in context with the early development of navigational methods. The

material is organized roughly as follows: the first third of the book deals with navigation in the natural world, the early history of navigation, navigating by the stars, precise mechanical chronometers for the determination of longitude at sea, and the development of precise quartz controlled clocks. Then, the reader is introduced to quantum ideas as a lead in to a discussion of microwave and optical interactions with atoms, atomic clocks, laser gyrocompasses, and time based navigation. The final third of the book deals with satellite-based systems, including orbit theory, early satellite navigation systems, and a detailed treatment of the Global Positioning System (GPS). Intended for non-specialists with some knowledge of physics or engineering at the college level, this book covers in an intuitive manner a broad range of topics relevant to the evolution of surface and space navigation, with minimum mathematical formalism.