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Titolo	Introduction to the theory of radiopolarimetric navigation systems // Kozlov A.I. [and four others]
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ISBN	981-13-8395-2
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xx, 365 pages) : illustrations, charts
Collana	Springer Aerospace Technology, , 1869-1730
Disciplina	623.8932
Soggetti	Radio in navigation Polarimetry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Radiophysical provision of radiopolarimetric navigation systems -- Analysis of the signals polarization of radiopolarimetric navigation systems using coordinate components -- Analysis of the signal polarization state of navigation systems based on energy characteristics -- Analysis of the signal polarization of navigation systems in the plane of geometrical parameters -- Graphic representations of the signal polarization state in navigation systems -- Scattering matrix and its basic properties -- Own radio emission and scattering of radio waves -- Scattering of polarized radio waves from surface structures and backgrounds of navigational observation -- Radiolocation in radiopolarimetry navigation systems -- Scattering matrix as a tool to display information on visual targets.
Sommario/riassunto	The book highlights three types of technologies being developed for autonomous solution of navigation problems. These technologies are based on the polarization structure, ultra-broadband and the fluctuation characteristics (slow and fast) of the radiolocation signals. The book presents the problems of intrinsic thermal radio emission polarization and change in radio waves polarization when they are reflected from objects with non-linear properties. The purpose of this book is to develop the foundations for creating autonomous radionavigation systems to provide aviation with navigation systems that will substantially increase its capabilities, specifically acting where

satellite technologies do not work. The book is intended for specialists involved in the development and operation of aviation-technical complexes, as well as for specialists of national aviation regulators and ICAO experts dealing with the problems of improving flight safety.

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