

1. Record Nr.	UNISA996418174903316
Autore	Zheng Wei
Titolo	X-ray Pulsar-based Navigation [[electronic resource]] : Theory and Applications / / by Wei Zheng, Yidi Wang
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-3293-1
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (232 pages)
Collana	Navigation: Science and Technology, , 2522-0454 ; ; 5
Disciplina	629.4
Soggetti	Space sciences Aerospace engineering Astronautics Signal processing Image processing Speech processing systems Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Aerospace Technology and Astronautics Signal, Image and Speech Processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- X-ray pulsar signal processing -- X-ray pulsar/multiple measurement information fused navigation -- Ground-based simulation and verification system for X-ray pulsar-based navigation.
Sommario/riassunto	This book discusses autonomous spacecraft navigation based on X-ray pulsars, analyzing how to process X-ray pulsar signals, how to simulate them, and how to estimate the pulse's time of arrival based on epoch folding. In turn, the book presents a range of X-ray pulsar-based spacecraft positioning/time-keeping/attitude determination methods. It also describes the error transmission mechanism of the X-ray pulsar-based navigation system and its corresponding compensation methods. Further, the book introduces readers to navigation based on multiple measurement information fusion, such as X-ray pulsar/traditional celestial body integrated navigation and X-ray pulsar/INS integrated navigation. As such, it offers readers extensive information on both the

theory and applications of X-ray pulsar-based navigation, and reflects the latest developments in China and abroad. .
