

1. Record Nr.	UNINA9910814734903321
Autore	Budge Mervin C., Jr.
Titolo	Basic radar tracking // Mervin C. Budge, Jr., Shawn R. German
Pubbl/distr/stampa	Boston : , : Artech House, , ©2019 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2018]
ISBN	1-63081-336-2
Descrizione fisica	1 online resource (343 pages)
Collana	Artech House radar series
Disciplina	621.3848
Soggetti	Tracking radar
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	Detailed closed-loop bandwidth and transient response approach is a subject rarely found in current literature. This innovative resource offers practical explanations of closed-loop radar tracking techniques in range, Doppler and angle tracking. To address analog closed loop trackers, a review of basic control theory and modeling is included. In addition, control theory, radar receivers, signal processors, and circuitry and algorithms necessary to form the signals needed in a tracker are presented. Digital trackers and multiple target tracking are also covered, focusing on g-h and g-h-k filters. Readers learn techniques for modeling digital, closed-loop trackers. The radar circuitry/block diagrams necessary for range, Doppler and angle tracking are presented and described, with examples and simulations included. Factors such as noise and Swerling type fluctuations are taken into account. In addition to numerous worked examples, this approachable reference includes MATLAB® code associated with analysis, simulations and figures. The book contains solutions to practical problems, making it useful for both novice and advanced radar practitioners. Software will be available for download on this page.