



## Array Processing of Passive Sonobuoys for Underwater Target Tracking

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Advanced Signal Processing Techniques | Underwater target tracking in ocean environment has attracted considerable interest in both military and civilian applications. Towards this purpose, sonobuoys are among the capable sonar systems used in underwater environments. Sonobuoys are used to detect and track underwater objects emitting sounds. The main factors influencing the operation of sonobuoys are the interference sources and background noise. This book investigates: (1) The application of high resolution spectral estimation algorithm to improve target detection and enhance the accuracy of bearing estimation; (2) The theoretical requirements for sonobuoys positioning in order to feasibly and coherently process a field of sonobuoys; (3) Coherent processing of uniform and arbitrary arrays of GPS sonobuoys; (4) The integration of frequency domain adaptive beamforming with artificial neural network (ANN) to resolve the ambiguity existing in bearing estimation when processing widely spaced array omni-directional sonobuoys; (5) The development of virtual array search method to enhance the bearing estimation when processing sparse array of directional sonobuoys. | Format: Paperback | Language/Sprache: english | 376 gr | 220x150x14 mm | 240 pp.



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