

Motion Compensated Beamforming

Raymond Kraszewski

Naval Undersea Warfare Center - Keyport
rayk@kpt.nuwc.navy.mil (360) 396-1415

Abstract: A sea- water range and test environment is constructed in which multiple acoustic sources are moving along varied trajectories. The aggregate acoustic signal is measured with a planar array consisting of 120 hydrophones. A system of independent tracking arrays is used to provide ancillary positional information for each source.

When the information obtained from the tracking system is incorporated into the beamforming algorithm it is demonstrated that the extraction of each source can be achieved with the effect that source motion is removed from the signature estimate.

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