

1014-86-1634

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Adaptive coherent interferometric imaging.

We propose an adaptive array imaging method based on a space-time interferometric functional for imaging objects embedded in randomly inhomogeneous media (clutter). Our method provides statistically stable images, that is, images that do not depend on the particular realization of the clutter. Due to the presence of the clutter however, the image we obtain is a blurry version of the real object. We illustrate the robustness of our method with numerical simulations. (Received September 28, 2005)