

Hybrid Diversity Method Utilizing Adaptive Diversity Function for Recovering Unknown Aberrations in an Optical System

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DESCRIPTION

This unknown aberrations recovering method involves collecting intensity data i.e. broadband data, produced by an optical system, and generating an initial estimate of a phase of the system. A phase retrieval is performed on the data to generate a phase estimate using an initial diversity function corresponding to the data. A phase map is generated from the phase retrieval phase estimate, and the phase map is decomposed to generate a decomposition vector. An updated diversity function is generated by combining the initial diversity function with the decomposition vector.

FEATURES AND BENEFITS

- The method produces an unwrapped phase result based on a more direct computational procedure, thus eliminating additional post-processing steps of phase retrieval processes, and facilitating high-speed multi-processor implementations for reduced latency.

APPLICATIONS

- Telescopes

FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-14879-1, please contact:

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