wavefront sensing portfolio

Filter Function for Wavefront Sensing & Control over an Extended Field of View

Description

This algorithm analyzes and optimizes multiple wavefront estimates from multiple field points. This feature allows for more balanced optical system performance over the entire field of view. Instead of adapting the control scheme for the entire field of view to a wavefront reading from a single point, this algorithm takes multiple wavefront measurements from across the field of view and synthesizes them to achieve better overall optical system performance.

Features and Benefits

- This algorithm takes multiple wavefront readings from across the field of view, improving optical system performance.

- Imaging performance is less sensitive over the field of view after wavefront corrections are made using this scheme.

- This process optimizes wavefront sensing and control across wider fields of view.

Applications

- Wide Field of View Optical Systems

- Medical Imaging

- Microscopy

For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-14900-1, please contact:

Enidia Santiago-Arce
Innovative Partnerships Program Office
NASA Goddard Space Flight Center
enidia.santiago-arce-1@nasa.gov
(301)-286-8497

To view Goddard's entire portfolio of wavefront sensing technologies, please visit:
http://ipp.gsfc.nasa.gov/wavefront