

Objective Lens Simultaneously Optimized for Pupil Ghosting, Wavefront Delivery and Pupil Imaging

Description

This interferometer objective lens is optimized for pupil ghosts, and may also be effective for wavefront delivery and pupil imaging. It improves interferometer images by reducing pupil ghosts on the objective lens. The lens overcomes previous limitations by providing diffraction limited optical performance at two sets of conjugates. The result is a drastic reduction of the impact of first reflection ghosts at the interferometer pupil.

Features and Benefits

- Resolution is better than nonoptimized lenses, but the resolution is somewhat limited to match a current commercial system.
- This objective lens greatly reduces interferometer pupil ghosts.
- It provides for the delivery of diffraction limited spots from the output of the interferometer.
- The absolute value of the angles of incidence of the marginal rays is maintained above a minimum threshold for the infinite image conjugate.

Applications

This technology is useful for commercial interferometers with segmented optical components.

For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-15675-1, please contact:

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