wavefront sensing portfolio

Wavefront Control and Optimization Toolbox

Description

The Wavefront Control and Optimization Toolbox is a piece of Matlab software used for the simulation and operation of optical devices with segmented mirrors and adaptive optics control systems. The toolbox allows users to determine the mechanical degrees of freedom given to the mirror segments to compensate for misalignments and fabrication errors. It is highly configurable, giving users an unprecedented number of options for how they can control their optical system.

Features and Benefits

- This software is highly configurable, which allows it to be readily applied to new optical models or control schemes.
- The control process is highly transparent, making the user a more informed and effective decision-maker.
- The software uses open source resources to interact with optical design software packages, such as CODE V or Zemax, in a way that provides the user higher-level access to the optical models through a unified interface.

Applications

This technology is likely to be useful for optical systems design and simulation using a Matlab based toolbox; it is likely to be most applicable to universities or companies developing adaptive-optics or segmented optics technologies.

For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-15567-1, please contact:

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