Tracking No.: 0P303-27

Title:

Recent updates to the Arnold Mirror Modeler and integration into the evolving NASA overall design system for large space based optical systems.

Abstract:

Since last year, a number of expanded capabilities have been added to the modeler. The support the integration with thermal modeling, the program can now produce simplified thermal models with the same geometric parameters as the more detailed dynamic and even more refined stress models. The local mesh refinement and mesh improvement tools have been expanded and more user friendly.

The goal is to provide a means of evaluating both monolithic and segmented mirrors to the same level of fidelity and loading conditions at reasonable man-power efforts. The paper will demonstrate most of these new capabilities.

Note:

follow up presentation to SPIE 8836-15 "Next Generation Lightweight Mirror Modeling Software" 2013 International Society for Optics and Photonics (SPIE) Optics and Photonics Exhibition - Opto-mechanical Engineering/SPIE (M13-2551\_DAA)