



## Advanced Maui Optical and Space Surveillance Technologies (AMOS) Conference



The Advanced Maui Optical and Space Surveillance Technologies (AMOS) Conference is the premier technical conference in the nation devoted to space surveillance. The cross section of military, contractor, and academic participation in the field of space situational awareness is unmatched by any other conference in the world as evidenced by the continued growth in attendance, and the corresponding increase in technical excellence and collaboration.

### 9-YEAR COMMITMENT TO AMOS

Applied Optimization  
Has Been a Proud  
Malama Sponsor for  
Nine Years in a Row.

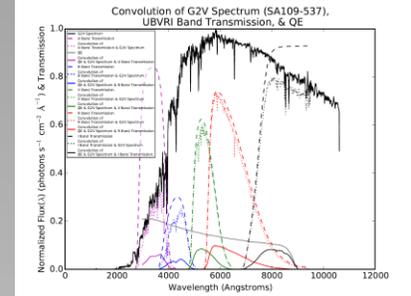


AO is committed to  
being a leader in  
optical and space  
technology.

Applied Optimization's Space Team is proud to present a technical paper this year on research sponsored by the Air Force Research Laboratory. This paper is a summary of the techniques used to separate spatially non-resolved visible brightness measurements into the satellite nadir-pointing components and the solar-tracking components entitled, "Development and Evaluation of New Methods for Estimating albedo-Area for Stable GEOs". Check it out at the **Non-Resolved Object Characterization Session** on Thursday at 12:30 pm.

"I am surprised by the depth and breadth of technology in the projects we have at AO since we are such a small company. The technology we propose and work on here is state of the art. AO has helped me fulfill my dreams. It's a great place to work."

—Diane Beamer  
Optics Engineer



At AMOS 2016, AO presented work on establishing a standardized photometric calibrations for panchromatic sensors.

We published a stellar calibration star catalog for the SSA community to use for improving the photometric accuracy of photometry for sensors that have no spectral filters.

Check out Castro, P., et al., "Standardized Photometric Calibrations for Panchromatic SSA Sensors", AMOS 2016 Proceedings.

### The Right Balance of Non-Conformity & Critical Thinking



# OUR VISION

To Work Collaboratively to Change the World

In Dayton, Ohio, we are fortunate to have top-notch universities from which to choose those graduates who seek to build their future on the stars. Wright State University, University of Dayton, and Miami University have produced some of the finest graduates that have become part of the fabric at AO.

Members of our team are encouraged to pursue their advanced degrees as well. We commit to creating an environment where ideas are shared with a diverse team of colleagues.

“Working at AO has helped me see deeper ways of looking at and thinking about data. Things do not always work here, and you have to figure out why. You must be creative. I enjoy that.”  
 – Jeff Hollon  
 Applied Mathematician

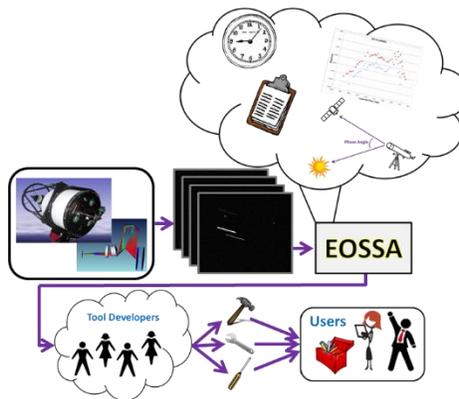
## The AO Team

In space science, we develop algorithms for the control of optical equipment and the collection, reduction, and analysis of brightness data for astronomical objects.

In material science, we develop algorithms for the control of materials processing equipment, and the collection, reduction and analysis of materials data for structural and engineering components.

The AO Space Team is pursuing its dreams

The Space Team is actively transitioning algorithms and new techniques from Research, Development, Science, and Technology to the Operational Space Community and the Space Warfighter.



The use of the new standardized file format (EOSSA) is catching on with new EO sensors collecting SSA data.

EOSSA is based on NASA’s FITS standard. It supports all EO types of data including astrometry, photometry, radiometry, and spectroscopy.

AO analyzes a variety of non-resolved object characterization techniques. See *AMOS 2016 paper by Payne et al.* on using color indices based on the Sloan photometric system for satellite identification and discrimination.

