

RMOSA

Rocky Mountain Section of the Optical Society of America

Joint RMOSA/IEEE-LEOS Seminar & Meeting

Thursday, May 15, 2008

Pizza & Refreshments: 6:30 p.m. :: Seminar: 7:30 p.m.

[BUS 340 Leeds Business, CU, Boulder](#)

The Aeronomy of Ice in the Mesosphere (AIM) Mission



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Abstract: The Aeronomy of Ice in the Mesosphere (AIM) mission was launched from Vandenberg Air Force Base in California at 1:26:03 PDT on April 25, 2007 becoming the first satellite mission dedicated to the study of polar mesospheric clouds. A Pegasus XL rocket launched the satellite into a near perfectly circular 600 km sun synchronous orbit. AIM carries three instruments specifically selected because of their ability to provide key measurements needed to address the AIM goal which is to determine why these clouds form and vary. The instrument payload includes a nadir imager, a solar occultation instrument and an in-situ cosmic dust detector. Early science results from the first northern and southern hemisphere seasons show a highly variable cloud morphology, clouds that are ten times brighter than measured by previous space-based instruments, the presence of a previously suspected but never before measured layer of small particles believed to be the cause of summertime radar echoes and a mesospheric ice layer that extends from below the main northern hemisphere peak at 83km up up to ~90km in one continuous layer. Additionally, complex features were observed that are reminiscent of tropospheric weather phenomena.

Bio-Sketch: Please visit Dr. Rusch's [web-page \(http://lasp.colorado.edu/~rusch/dwrv.html\)](http://lasp.colorado.edu/~rusch/dwrv.html) for his full vita.

<http://osa.braveline.com/rmosa/index.html>

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