Mathews Publication List

Papers Submitted and in Review


Special Reports


Journal Articles and Reviewed Conference Proceedings (107 refereed papers):


Non-Refereed Papers and News Articles

Invited Conference, Summer School or Workshop Papers:
Mathews, J. D., “Meteor science (including chemistry) and layering phenomena in the lower thermosphere. Is there anything that we lack basic knowledge of and how should we go about it?”, *12th International Symposium on Equatorial Aeronomy*, Heraklion, Crete, Greece (18-24 May, 2008).


Mathews, J. D., “Lower ionosphere dynamics and chemistry as observed using incoherent scatter radar techniques alone and in combination with other instruments. In:” 30th COSPAR Scientific Assembly, Hamburg, Germany (1994).


Mathews, J.D., "Some Aspects of Metallic Ion Chemistry and Dynamics in the Mesosphere and Thermosphere," First GLOBMET Symposium, Dushanbe, Tadzhikistan, USSR (August

Mathews, J.D., J.K. Breakall, M.P. Sulzer and J.K. Hargreaves, "Incoherent Scatter Radar Observations of the 60-100 km Ionosphere at Arecibo," spring 1983 American Geophysical Union Meeting, Baltimore, Maryland (June 1983).


Meeting Presentations:


Mathews, J. D., J. Urbina, and A. Malhotra, Adapating the new Arecibo on-dish HF transmitter system to radar mode, presented at HF Facility Workshop, Arecibo Observatory, 29-31 March 2010.


Mathews, J. D., Meteor highlights, paper presented at 2008 CEDAR Workshop, Midway, Utah, 16-21 June 2008.


Seker, I., and J. D. Mathews, Clues to the properties of MSTIDs using azimuth-scanning ISR and all-sky imaging, paper presented at 2008 CEDAR Workshop, Midway, Utah, 16-21 June 2008.


Malhotra, A., J. D. Mathews, and J. Urbina (2007), A radio science perspective on long-duration


Seker, I., J. D. Mathews, J. Wiig, P. F. Gutierrez, J. Friedman, and C. A. Tepley, Categorization of the events observed by the Penn State Allsky Imager at Arecibo Observatory, paper presented at CEDAR Workshop, Santa Fe NM, 19-23 June, 2006.


Livneh, D.J., and J.D. Mathews, DUMBO and the ionosphere, Joint CEDAR/GEM Workshop, Santa Fe NM, 26 June - 1 July, 2005.


Zhou, Q.-N., J.D. Mathews, I. Seker, and N. Aponte, A numerical simulation of the extended Perkins instability equations with real-time electric fields and comparison with 630.0 nm airglow images., CEDAR-GEM Joint Workshop, Santa Fe NM, June 26 - July 1, 2005.

Seker, I., J.D. Mathews, and Q.-N. Zhou, Context is everything! The F-region electrodynamics
using the Incoherent Scatter Radar and Allsky Imager at Arecibo, Joint CEDAR/GEM Workshop, Santa Fe NM, 26 June - 1 July, 2005.


Mathews, J.D., Nighttime mid-latitude F-region structures: What are they, and should we study them? CEDAR-GEM Joint Workshop, Santa Fe NM, June 26 - July 1, 2005.


Briczinski, S.J., C.-H. Wen, and J.D. Mathews, Recent automated-search meteor results from Arecibo 430 MHz radar observations, URSI National Radio Science Meeting, Boulder CO, 4-8 January, 2005.


Ying, W.-P., J.D. Mathews and C.A. Tepley, "Thermal Structure Near the 85 km Mesopause Region Inferred from OH(8-3) and OH(5-1) Rotational Band Emissions," paper presented at the spring American Geophysical Union Meeting, Baltimore, Md. (13-19 May 1986).


