

News Release

## GRADUATE RESEARCH CENTER OF THE SOUTHWEST

## SOUTHWEST CENTER FOR ADVANCED STUDIES



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RELEASE  
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PROF. JULES A. FEJER OF DALLAS RESEARCH CENTER TO SPEAK ON  
 IONOSPHERIC CURRENT SYSTEMS AT SECOND BENEDUM SYMPOSIUM (11-23-64)

Prof. Jules A. Fejer of the Graduate Research Center of the Southwest will give an invited paper Monday, Nov. 23, at the Second Benedum Earth Symposium. The symposium will be held at the University of Pittsburgh.

Professor Fejer will speak on "Ionospheric Current Systems Caused by Magnetospheric Trapped Particles."

At invitation of Prof. Ian Axford, Department of Astronomy, Cornell University, Professor Fejer will also join a panel discussion Monday evening.

In published papers of the past year, Professor Fejer has suggested that systems of ionospheric currents resembling derived patterns of magnetic bays would be caused by presence of energetic trapped particles. In his current abstract, he points out probable modification of the Sq atmospheric dynamo current system when trapped particles are present.

Modification, Professor Fejer explains, could be caused by charge separation between low and high-energy particles drifting in meridional patterns, with a super-imposed and dominating east-west drift affecting the high-energy particles.

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Current systems resembling bays could also arise from rotation of Earth's atmosphere and magnetospheric plasma, plus geomagnetic field distortion by the solar wind, suggests Professor Fejer. A polarization field suitably oriented for production of charge separation would result within this model.

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Professor Fejer is a faculty member in the Center's Atmospheric and Space Sciences Division.

The Graduate Research Center of the Southwest is located at Dallas, Texas. It is a private, non-profit center of basic research and post-doctoral education with a total faculty and staff of 237. Chartered February 14, 1961, the Center occupied a 1,266 acre suburban campus on October 29, 1964.

Dr. Lloyd Berkner, often called the "father of the International Geophysical Year," is president of the Center.

EDS:  
PRONOUNCE Fejer as FAY'-ER.

--PGH--al mitchell--11-19-64--X--