



# Air Force Research Laboratory | AFRL

*Science and Technology for Tomorrow's Air and Space Force*

## **Success Story**

### **DR. GARSCADDEN WINS 2002 WILL ALLIS PRIZE**



The Propulsion Directorate's Chief Scientist, Dr. Alan Garscadden, received the 2002 Will Allis Prize for the study of ionized gases. The American Physical Society (APS) bestows this prestigious award, established in 1989, in recognition of outstanding contributions to the study of ionized gases for gaseous electronics phenomena.

Dr. Garscadden serves as technical advisor on a wide spectrum of aeronautical research including many facets of propulsion, aerospace power, hypersonics, laser physics, combustion, and plasma phenomena and applications.



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### **Accomplishment**

The APS recognized Dr. Garscadden for his distinguished career in gaseous electronics, marked by a sustained creativity in linking fundamental processes to the macroscopic properties of gas discharges and plasmas, and for his dedicated role as an advocate for the field of gaseous electronics. He is known for his work in theoretical and experimental basic and applied research in nonequilibrium plasmas and energized gas flows, lasers, laser-based measurements, plasma-processing of thin films, optical and mass spectroscopic measurements, electron impact cross sections and their influence on electron transport, and the derivation of collision cross sections from transport data.

### **Background**

Dr. Garscadden has authored more than 250 publications and presentations and served on many organizing committees for both national and international meetings and symposiums. He has served on various technical committees and several professional societies, reviewed more than 100 publications, authored several book chapters, and conducted approximately 120 invited lectures and presentations to peer audiences including plenary talks at international meetings. He also served as thesis adviser and adjunct professor for several local and national universities.

The APS represents more than 40,000 members. The society develops and implements effective programs in physics education and outreach to foster the health of the profession through its career and development initiatives. The APS named the award in honor of Dr. William P. Allis, who spent more than 40 years on the Massachusetts Institute of Technology faculty, conducting theoretical research on plasmas in magnetic fields and the behavior of partially ionized gases.

Propulsion  
Awards and Recognition

### **Additional information**

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-PR-10)