

American Institute of Aeronautics and Astronautics

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Astrodynamics Technical Committee

"Lunch-and-Learn"





How to Build Cost-Optimized Interstellar Beacons (and How to Search for Them)

James N. Benford, Ph.D.*

*Microwave Sciences. Inc.

DATE: Monday, April 26, 2010 PLACE: JSC Gilruth Center Longhorn Room (upstairs)
TIME: Noon to 1:00 PM ADMISSION: free (and AIAA membership not required)

How would we on Earth build galactic-scale Beacons to attract the attention of extraterrestrials? An optimum tradeoff emerges by minimizing the cost of producing power density at long range. James Benford will show scaling, examples and costs. If ETI were to build a cost-optimum interstellar Beacon, how should we look for it? Jim will propose SETI search strategies, a new test for SETI Beacons and describe how observers can differentiate Beacons from pulsars or other exotic sources.

James Benford is President of Microwave Sciences, Inc. a contracting firm specialized in High Power Microwave (HPM) systems. Microwave Sciences provides expert services from conceptual designs to hardware, HPM effects testing and power beaming.

Dr. Benford has been active in advanced research in private companies for 40 years. He is experienced in transitioning research results into commercial products.

In 1997, James Benford was elected a Fellow of the Institute of Electrical and Electronic Engineering for "transferring high power microwave sources and systems into custom commercial products". In recent years, his clients have included 25 private companies, including the aerospace primes, 10 government agencies (NASA, DoD), and 3 universities.

Dr. Benford's education includes a Ph.D. in Physics from the University of California, San Diego. He has 135 scientific papers and has written 6 books on physics topics.

This event is open to all JSC team members. RSVP in advance at www.aiaa-houston.org is recommended but not required. AIAA membership is not required. This event is a free event. Professional Engineers earn one hour of credit toward Continuing Education requirements by attending this event. For additional information contact Dr. Albert A. Jackson, technical committee chair, 281-483-5037, or Douglas Yazell: home: aiaadyazell@me.com, work: 281-244-3925.

Please plan for your lunch meal elsewhere before or after this event. We did not provide a meal option this time, and attendees may not bring their own food to events in this building.