

# ADVANCE PROGRAM & REGISTRATION FORM

**The Antenna Measurement Techniques Association (AMTA)**



*In Cooperation With The*

**IEEE**

**Antennas and Propagation Society Los Angeles Chapter  
Electromagnetic Compatibility Society Los Angeles Chapter**



*Proudly Present*

**Advances in Antenna Testing for Aerospace Applications:  
A Colloquium and Exhibition**

**Monday, September 15, 2008**

**The Manhattan Beach Marriott Hotel  
1400 Parkview Ave.  
Manhattan Beach, CA 90266**

## Program Outline

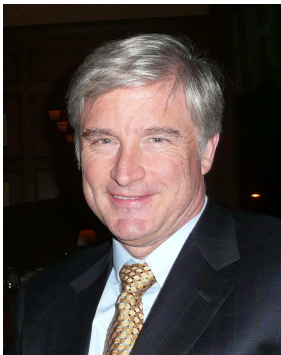
7:30 am	<b>REGISTRATION</b> <b>CONTINENTAL BREAKFAST</b>
8:30 am	<b>AMTA/IEEE Welcome</b> Ray Adams, The Boeing Company Charlie Jackson, Northrop Grumman Jeff Fordham, MI Technologies
8:40am	<b>Anechoic Chamber Design, Rectangular Antenna Ranges:</b> <b>A Case Study</b> Dr. Vince Rodriguez, ETS-Lindgren
9:30 am	<b>Getting the Most From Your Vector Network Analyzer:</b> <b>Tips and Techniques for Antenna Engineers</b> Tim Harris, Rohde & Schwarz
10:15 am	<b>BREAK in Exhibit Area</b>
10:45 am	<b>The Art and Science of Antenna Near Field</b> <b>Measurements and Diagnostics:</b> <b>Plane-Polar, Bi-Polar and Phaseless Techniques</b> Professor Yahya Rahmat-Samii, UCLA
12:00 pm	<b>LUNCH</b>
1:00 pm	<b>Similarities in Recipes for Image Formation Processes; Visual,</b> <b>Holographic, Tomographic,</b> <b>Synthetic Aperture Radar</b> Dean Mensa, Naval Air Warfare Center, Pt. Mugu
2:00 pm	<b>Rapid and Accurate Near-field Measurements on</b> <b>Aerospace Antenna Systems</b> Greg Hindman, Near-field Systems
3:00 pm	<b>BREAK in the Exhibit Area</b>
3:30 pm	<b>Low Frequency (100 MHz – 2 GHz) Anechoic Chamber Analysis</b> John Aubin, Orbit/FR
4:15 pm - 5:00 pm	<b>RECEPTION, DEMONSTRATIONS</b> <b>AND RAFFLE IN THE</b> <b>EXHIBITS AREA</b>

NOTE: Tabletop displays (exhibits) will be open during registration, lunch, all breaks, and the reception. Access to the tabletop displays is available during the technical sessions, but the displays may not be manned during those times. You must be present to win at the raffle. The above program is subject to change without notice.

## About the Speakers



**John Aubin** currently serves as Vice President for Business Development and Chief Technology Officer at ORBIT/FR Inc. in Horsham, PA. Mr. Aubin received the BSEE from Virginia Tech in 1977, MBA from Temple University in 1983, and MSEE from Drexel University in 1988. He has previously been engaged in the design and implementation of high performance earth station antennas and beam waveguide systems, EW and radar antennas, monopulse tracking radars, and broadband horn antennas in addition to his work in automated measurement systems. His current interests include antenna and radar cross-section measurement technology, wireless systems, radar and microwave systems engineering, and antenna design. Mr. Aubin has served as principal design engineer on a number of automated antenna and radar measurement systems ranging from VHF up to millimeter waves, including a microwave imaging system for evaluation of biological tissue, a high performance low frequency radar cross section measurement system, and a dynamic radar cross section measurement system using an integrated tracking and signature measurement radar. Mr. Aubin has authored over thirty papers on antennas, radar, and measurement technology.

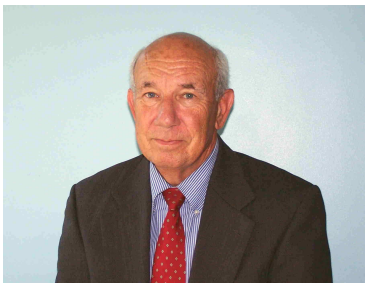


**Greg Hindman** is President and Co-Founder of Nearfield Systems, Inc., which was formed in 1988 to address a need in industry for a turnkey supplier of near-field antenna measurement equipment. Mr. Hindman has more than 30 years of experience in the field of antenna system design and antenna measurements. He is actively involved in the design, development, manufacture and installation of antenna measurement systems throughout the world. He has published more than 20 technical papers on the subject of near-field antenna measurements, including papers on error suppression and correction techniques. Mr. Hindman served on the board of directors of the Antenna Measurement Techniques Association (AMTA) for 3 years as the board's secretary and Vice President. His recent work has focused on spherical near-field measurements and the development and validation of a Mathematical Absorber Reflection Suppression (MARS) technique for error correction. His recent AMTA paper "Simplified Spherical Near-field Accuracy Assessment" received recognition as one of the best papers of the conference. Prior to forming NSI, Greg Hindman worked for 10 years at TRW's Electronic Systems Group, doing antenna design and project management work. He was responsible for the implementation of a number of large near-field ranges for testing TRW's satellite antenna projects. He received his Bachelor of Science degree in Electrical Engineering from the University of Colorado in 1977. His personal interests include sailing, SCUBA diving, and photography.



**Tim Harris** is a Field Applications Engineer for Rohde & Schwarz with an emphasis in general aerospace applications and Vector Network Analysis (VNA). Prior to joining Rohde & Schwarz in 2005, he was with Agilent Technologies as a Applications Engineer for the RF and Microwave industries. From 1995-2000, he worked for the Test System Development – Communications Payload Electronics department of Hughes Space & Communications. From 1988-1995, he was with McDonnell Douglas Electronic Systems Company in the DSP Software Engineering department. Mr. Harris holds a Bachelor of Science degree in Physics from the University of California, Riverside. He has presented

numerous papers and is a member of the IEEE.



**Dean L. Mensa** was born in Torino, Italy on March 13, 1939. He received the B.S. and M.S. degrees in Electrical Engineering from the University of California, Los Angeles in 1962 and 1964, and the Ph.D. degree in Electrical Engineering from the University of California, Santa Barbara in 1980. Until 1994, he was a Senior Technologist at the Naval Air Warfare Center, Point Mugu, California, where he directed technical operations of the Radar Reflectivity Laboratory for 18 years. Currently a consultant, he

has 45 years of experience in the analysis of airborne radar systems, radar target signatures, and radar cross-section (RCS) reduction. His recent experience has been in the application of high-resolution microwave imaging to the control of radar backscatter, spanning the fields of: electromagnetics, signal and image processing, and instrumentation system design. His work led to the development of imaging systems that are currently applied throughout the RCS measurement community to determine scattering characteristics of radar targets on RCS test ranges. He is the author of more than 150 technical reports, many technical papers, the texts *High Resolution Radar Imaging* (Artech 1981) and *High Resolution Radar Cross-Section Imaging* (Artech 1991), has conducted several short courses on radar imaging, participated in short courses on antenna measurements, and is the holder of 6 patents. He is a Senior member of IEEE, received the Ventura County Chapter Sigma-Xi award for outstanding research in 1982, the Navy Meritorious Civilian Service award in 1994, and the AMTA Distinguished Achievement award for 1995.



**Yahya Rahmat-Samii** is a Distinguished Professor, holder of the Northrop-Grumman Chair in electromagnetics and the former chairman of the Electrical Engineering Department at the University of California, Los Angeles (UCLA). Before joining UCLA in 1989, he was a Senior Research Scientist at NASA's Jet Propulsion Laboratory. Dr. Rahmat-Samii was the 1995 President of IEEE Antennas and Propagation Society and was appointed an IEEE Distinguished Lecturer presenting lectures internationally. Dr. Rahmat-Samii was elected as a Fellow of IEEE in 1985 and a Fellow of IAE in 1986 and also served as the Vice President of AMTA. Dr. Rahmat-Samii has authored and co-authored over 750 technical

journal articles and conference papers and has written 25 book chapters and three books entitled, *Electromagnetic Optimization by Genetic Algorithms*, and *Impedance Boundary Conditions in*

*Electromagnetics and Implanted Antennas in Medical Wireless Communications*. He is also the holder of several patents. His research contributions cover a diverse area of electromagnetics and antennas. Dr. Rahmat-Samii has received numerous awards, including the 1992 and 1995 Wheeler Best Application Prize Paper Award for his papers published in the IEEE Antennas and Propagation Transactions, 1999 University of Illinois ECE Distinguished Alumni Award, IEEE Third Millennium Medal, and AMTA'2000 Distinguished Achievement Award. In 2001, Rahmat-Samii was the recipient of an Honorary Doctorate in Physics from the University of Santiago de Compostela, Spain. In 2001, he was elected as a Foreign Member of the Royal Flemish Academy of Belgium for Science and the Arts. In 2002, he received the Technical Excellence Award from JPL and in 2005 he was the recipient of the URSI Booker Gold Medal. He is the recipient of the 2007 Chen-To Tai Distinguished Educator Award of the IEEE Antennas and Propagation Society and in the same year elected as Edmond S. Gillespie Fellow of Antenna Measurement Techniques Association. In 2008, he was elected to the membership of the US National Academy of Engineering (NAE). Prof. Rahmat-Samii is the designer of the IEEE AP-S logo that is displayed on all IEEE AP-S publications.



**Vicente Rodríguez** attended The University of Mississippi, in Oxford MS, where he obtained his B.S.E.E. in 1994. During the fall of 1994 he joined the Department of Electrical Engineering at the University of Mississippi as a research assistant. During this period he was involved in projects related to reduction of cross talk in high-speed digital circuits as part of an Army Research Office grant and on the use of the Finite Difference Time Domain technique in antenna analysis. During his tenure at the department he completed his Master of Science and Doctorate in the area of Engineering Science with an emphasis on Electromagnetic Theory in 1996 and 1999, respectively. In August 1999, Dr. Rodríguez joined the department of Electrical Engineering and Computer Science at Texas A&M University-Kingsville (formerly Texas A&I University) as a Visiting Assistant Professor. In June 2000 Dr. Rodríguez left the academic world when he joined EMC Test Systems (now ETS-Lindgren) as an RF and Electromagnetics engineer. During this time he was involved in the RF anechoic design of several chambers, including rectangular and taper antenna pattern measurement chambers some of them operating from 100MHz to 40GHz. In September 2004 Dr. Rodríguez took over the position of Senior Principal Antenna Design Engineer, placing him in charge of the development of new antennas for different applications and on improving the existing antenna line. Among the antennas developed by Dr. Rodríguez are new broadband double and quad-ridged guide horns with a single lobe pattern and high field generator horns for the automotive industry. Dr. Rodríguez's interests include numerical methods in electromagnetics, especially when applied to antenna, EMC and RF/MW absorber design and analysis. Dr. Rodríguez is the author of more than twenty publications including journal and conference papers as well as book chapters and holds patents for hybrid absorber and for a new dual ridge horn antenna. Dr. Rodríguez is a senior member of the IEEE and several of its technical societies including the AP, MTT and the EMC Societies. He is also a senior member of the Antenna Measurements Techniques Association (AMTA). Dr. Rodríguez is an active member of the Applied Computational Electromagnetic Society (ACES). He is an Associate Editor of the ACES Journal and chair of the member communications committee of ACES. Dr. Rodríguez has served as a reviewer for the ACES Journal and for the Journal of Electromagnetic Waves and Applications. He is a full member of the Sigma Xi Scientific Research Society and of the Eta Kappa Nu Honor Society.

## Event Overview

### **The Program**

This program was designed to bring the latest technology related to RF and antenna measurement techniques to the local community. Experts in the industry will share practical information on various topics in an extended presentation format. This allows a thorough discussion of each topic and provides the opportunity for extended questions and answers. The “hands-on” quality of the presentation enables the registrant to learn useful information that can be used on the job – in the “real world.”

### **The Exhibition & Reception**

There will be an exhibition by vendors of antenna, test and measurement related products and services in a ballroom neighboring the technical presentation area. These products and services address the needs of the commercial, military, and aerospace industries. During the reception from 4:15 to 5:00 pm in the exhibit area, heavy appetizers and a hosted bar will be available. AMTA and IEEE members are welcome to attend the reception only at NO CHARGE provided a registration form is completed and sent in advance. A badge will be available for the reception only attendees upon arrival at 4:15 pm. *Thus, if you can't join us for the entire day, drop by for the reception and exhibition to network with AMTA and IEEE. You can see demonstrations, meet the speakers, and you might even win a raffle prize!*

## Colloquium and Exhibition Location

The Manhattan Beach Marriott Hotel  
1400 Parkview Ave.  
Manhattan Beach, CA 90266  
310-546-7511

## Hotel Guest Room and Parking Information

A limited number of guest rooms are being held for “AMTA/IEEE” at the rate of \$134.00, plus tax, for single or double occupancy, and are available on a first come, first serve basis. **Please reserve by the cut-off date of August 25 to ensure guest room availability.**

Self-parking with event validation is available at \$13.00. Street parking is available at no charge.

# Organizing Committee

## **IEEE Los Angeles Chapter: Antennas and Propagation**

Frank Villegas  
The Aerospace Corp.  
Phone: 310-336-3209  
Frank.J.Villegas@aero.org

## **IEEE Los Angeles Chapter: Electromagnetic Compatibility**

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The Boeing Company  
Phone: 310-387-7201  
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## **AMTA Technical Coordinator**

Ed Urbanik  
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Edward.A.Urbanik@baesystems.com

## **AMTA Meetings Advisor and Tabletop Exhibits**

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ETS-Lindgren  
Phone: 425-868-2558  
j.n.oneil@ieee.org

## **Registration**

Gene Taylor  
Altamont Technical Services  
Phone: 661-268-0835  
atssocal@scvnet.com

## **REGISTRATION FEES**

AMTA/IEEE Members, Received by August 10	<b>\$135</b>
AMTA/IEEE Members, Received From August 11 – September 1	<b>\$185</b>
AMTA/IEEE Members, After September 1 or at Door*	<b>\$235</b>
Non Member Additional Charge**:	<b>\$50</b>
Full-time Students with copy of valid Student I.D., Postmark by September 1:	<b>\$75</b>
<b>NOTE: Unemployed/retired attendees: Take a 50% discount off the AMTA/IEEE Member fees above.</b>	
*Please do not mail after September 1.	
**Includes one year membership in AMTA	

# Registration Information

*Please print clearly*

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Daytime Phone: \_\_\_\_\_  
E-mail Address: \_\_\_\_\_  
AMTA or IEEE Member: Y\_\_ N\_\_  
IEEE #: \_\_\_\_\_  
Full-time Student: Y\_\_ N\_\_  
School: \_\_\_\_\_  
(Please attach copy of Student ID to obtain Student rate.)

## Registration by Mail/Fax/On-Line

Registration Total per Fees Above

Check Enclosed in Amount of: \$ \_\_\_\_\_

(Checks payable to: AMTA)

Or

Credit Card Payment – Please Provide:

Name on Card: \_\_\_\_\_

Credit Card No: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Amount Charged: \$ \_\_\_\_\_

Signature: \_\_\_\_\_

Mail to: AMTA, c/o Altamont Technical Services, 34864 Caprock Road, Santa Clarita, CA 91390

Fax to: Gene Taylor, 925-294-9775

Email to: [atssocal@scvnet.com](mailto:atssocal@scvnet.com)

**REGISTER ON LINE AFTER AUGUST 1: [www.amta.org](http://www.amta.org)**

**NOTE:** The registration fee includes one copy of the colloquium record, continental breakfast, lunch, refreshment breaks, and the reception. The organizing committee reserves the right to substitute speakers, restrict size, or to cancel the colloquium and exhibition. In the event the organizing committee cancels this event, registration fees only will be fully refunded. Individuals canceling their registration prior to August 15 will receive a full refund. No refunds will be made to individuals who cancel their registration after August 15. Substitutions are allowed. Attendance is limited. Registration will be confirmed on a first come, first served basis.