NEWSLETTER INPUT AND DEADLINES

The following is the schedule for the GRS-S Newsletter. If you would like to contribute an article, please submit your input according to this schedule. Input is preferred in Microsoft Word, WordPerfect or ASCII for IBM format (please send disk and hard copy) as IEEE now uses electronic publishing. Other word processing formats, including those for Macintosh, are also acceptable, however, please be sure to identify the format on the disk and include the hard copy.

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In the few minutes that I’ve got, I want to address you in relation to the IEEE Geoscience and Remote Sensing Society, the home of IGARSS. Now why would I want to do that? Well, 40-plus percent of people attending IGARSS in any one year are non-members of the GRSS society and sometimes we think there is a ‘disconnect’ there. IGARSS is not independent and it’s not an orphan, it is spawned by the society of GRSS. I want to encourage those who are not members to think seriously about taking out membership and at the end of the presentation I want to announce a great deal for current non-members. I am not only going to give away money I am going to save you money which you haven’t even spent.

Let me give you a little bit of background so you will understand where we’re coming from. The GRSS is one of 38 societies that belong to the world’s largest professional society, and that is the IEEE. We are one of the smallest societies but we are one of the few that have had an increase in membership over the last four years. Our membership has risen 8% over those 4 years to 2700 members.

A little bit of history about our society, and a few milestones. The society was started in 1961, and the actual name Geoscience and Remote Sensing Society was adopted in 1979. We have a very significant publication, the Transaction of Geoscience and Remote Sensing (TGARS), that’s been going since 1980, IGARSS itself is nearly 30 years old, and the Geoscience and Remote Sensing Letters was started in 2004. This year we are launching a new journal called the Journal of Selected Topics in Earth Observation and Remote Sensing (J-STARS) and I’ll say a little bit more about that in a moment.

The vision of the society is to be the leading society in the science, engineering, application and education of remote sensing and to be that society for the geospatial community at large. Over the last two years we have entered into a strategic planning process and the society has committed to doing the following five things:

1. We will be facilitating information dissemination – which is one match as well? See page 19 for a summary from MicroRad provided by Simonetta Paloscia and Giovanni Macelloni on the very successful ’08 meeting.

Also in this letter are changes to the GRS-S constitution approved at the last AdCom meeting that concern voting rights of ex-officio AdCom members. Additional changes to the bylaws are expected next quarter.

With the passing of IGARSS’08, we are beginning to feel the excitement of the preparations for the Cape Town meeting. This will be in full force after the wrap up from Boston in the next issue. For a teaser see their colorful advertisement on page 25 of this issue.

This month’s cover features the development of precipitation retrievals using AMSU data. During the writing of this letter, more than one hurricane and tropical storm made its way through the Caribbean making landfall on the mainland and islands. The storms depicted on the front cover remind us of the importance of remote sensing to weather forecasting, and operations as well as our basic contributions to science and climatology.

(continued on page 4)
of the reasons we are all here at IGARSS. We are implementing a broad-based continuing education program that may allow remote access to people particularly in the under developed and the developing world that may not be able to enjoy IGARSS. We are improving the management of the society operations. We’re being proactive rather than re-active by looking for new opportunities to service the community of remote sensing scientists. We are expanding our member and community services and we hope to have an impact on societal issues through the science and discipline that we pursue.

The society is run by a committee, an administrative committee (AdCom) of 18 elected members. There are a number of ex-officio members, a large number of volunteers who support and work with the AdCom, people who chair of conferences, people who run Technical Committees, people who are regional liaisons and people who set up local chapters. So in actual fact the AdCom is much bigger than the 18 elected people. To give you some idea we have five Vice Presidents: VP of Operations and Finance, VP of Meetings and Symposia, VP of Professional Activities, VP of Technical Activities and VP for Information Resources. I am not going to go through their portfolios, but I am going to give you an idea of the activities that the society is involved in. And now here, I must apologize, I have left out a very important person, the society treasurer, Jim Gatlin.

Let me just go through some of the highlights of the activities. IGARSS is nearly 30 years old. It has become increasingly world and global centered. As of Saturday afternoon, Munich has been chosen to host IGARSS 2012, that was the one missing piece to the IGARSS puzzle up to 2013. We also plan to have a thirtieth anniversary celebration in Honolulu in two years time. If you look at our locations and attendances, we have been growing over the past years. Last year we had an excellent conference in Barcelona. There were 1738 attendees in Barcelona, and as John (Kerekes) has already said, we are up to nearly 1700 here in Boston, so Boston may tip the scales from Barcelona. And of course next year you are all invited to Cape Town, which will be a totally different experience, I think, from some of the IGARSS you’ve been to. That will be in 2009 and you’ll hear more about that as the week progresses.

We not only run IGARSS but we also support and co-sponsor a large number of specialty symposia. In the past years we’ve been co-sponsoring 12 symposia, you can see those that have been approved for 2008 and another 3 symposia were approved at the AdCom meeting on Saturday and there are still more under consideration. So increasingly, we are becoming the sponsors of specialty symposia which are more regionally and more locally based.

One the very significant contributions of GRSS to our community is the Transactions of Geoscience and Remote Sensing or TGARS under the capable leadership at the moment of Jon Benediktsson. You might be interested to know that in the Thompson citation index TGARS is now ranked #2 in the world of remote sensing journals. Within the broader Electrical

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# GRS-S Chapters and Contact Information

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Yahya Rahmat-Samii has been elected to membership in the US National Academy of Engineering (NAE). Professor Yahya Rahmat-Samii was honored for his pioneering research contributions in the development and measurement of reflector and hand-held device antennas. Many of his designs and concepts are currently used in cell phones, planetary spacecraft, earth-observation satellites, and satellite dishes.

According to the National Academy, the mission of the National Academy of Engineering is to promote the technological welfare of the nation by marshalling the knowledge and insights of eminent members of the engineering profession. Founded in 1964, the National Academy of Engineering provides engineering leadership in service to the US. The NAE operates under the same congressional act of incorporation that established the National Academy of Sciences, signed in 1863 by President Lincoln. Under this charter the NAE was directed “whenever called upon by any department or agency of the government, to investigate, examine, experiment, and report upon any subject of science or art.” Membership comes through nomination and election by members of the Academy. It honors those who have made outstanding contributions to engineering research, practice or education.

Yahya Rahmat-Samii joined the UCLA Engineering faculty in 1988, after working as a senior research scientist at NASA’s Caltech Jet Propulsion Laboratory (JPL). He is a Distinguished Professor of the Electrical Engineering Department and holds the Northrop Grumman Chair in Electromagnetics at UCLA. In the summer of 1986, he was a guest professor at the Technical University of Denmark. He has also been a consultant to numerous aerospace and wireless companies.

Prof. Rahmat-Samii has authored or coauthored more than 750 technical journal and conference papers, 25 book chapters and three books, and is the holder of several patents. He has been an Editor and guest Editor for a number of technical journals and has served as Chair and Co-Chair of several national and international symposia, and organized many short courses.

Prof. Rahmat-Samii has been involved with the IEEE Antennas and Propagation Society for many years in several capacities, including as President in 1995 and Vice President in 1994 of the IEEE Antennas and Propagation Society. He was appointed an IEEE AP-S Distinguished Lecturer and has presented lectures internationally. He was elected an IEEE Fellow in 1985. He was a Director and Vice President of the Antennas Measurement Techniques Association (AMTA) for three years, and currently serves as a member of several Commissions of the United States National Committee of the International Union Radio Science (USNC/URSI). He will serve as the Chairman of USNC/URSI, 2009-2011.

His honors include the 2007 Chen-To Tai Distinguished Educator Award from the IEEE Antennas and Propagation Society; The Antenna Measurement Techniques Association 2007 Edmond S. Gillespie Fellowship membership; the 2006 NASA Board Award; the 2005 International Union of Radio Science’s Booker Gold Medal; election as foreign member of the Royal Flemish Academy of Science and the Arts in 2001; an honorary doctorate in 2001 from Spain’s University of Santiago de Compostela; the 2000 Antenna Measurement Techniques Association’s Distinguished Achievement Award; the IEEE’s Third Millennium Medal; a Distinguished Alumni Award from the University of Illinois ECD Department, Urbana-Champaign; and the Antennas and Propagation Society’s Harold A. Wheeler Best Applications Prize Paper Award in 1991 and 1994.

Prof. Rahmat-Samii served as Chair of the UCLA Department of Electrical Engineering from 2000 to 2005, and was a member of the universities Graduate Council for three years. He received his master’s and doctorate from the University of Illinois, Urbana-Champaign, and his bachelors with the highest distinction, from Iran’s University of Tehran, all in Electrical Engineering.
The IEEE Geoscience and Remote Sensing Society is soliciting book proposal contributions for the newly established IEEE GRSS book series entitled “Geoscience and Remote Sensing Techniques and Applications” published by the IEEE Press. Professor Kamal Sarabandi is the founding editor of this book series whom should be contacted by the prospective authors.

The rationale for establishing such book series are diverse some of which are mentioned below. Two major goals of the IEEE GRS Society are information dissemination at the leading edge of science, technology, and applications as well as promoting a broad based education agenda. To achieve these goals the GRSS holds annual conferences with published proceedings and currently offers three publications:

1. The internationally subscribed monthly journal, Transactions on Geoscience and Remote Sensing (TGARS), publishes advances in sensing instruments and techniques used for the acquisition of geoscientific information as well as techniques for processing, enhancing and interpreting information derived from remote sensing instruments.

2. Geoscience and Remote Sensing Letters (GRSL) encourages papers addressing new ideas and formative concepts in remote sensing as well as important new and timely results and concepts. The Letters are focused on shorter papers which are published more rapidly than TGARS and provide a venue for important advances.

3. The GRSS Newsletter is an information resource for members of the GRS Society, the greater membership of the IEEE, and the global community of individuals interested in the science and engineering of remote sensing of the Earth’s land, oceans, and atmosphere.

Pursuant to the aforementioned goals of the GRSS and in response to the recent surge of interest in remote sensing and global earth observations due to recent large scale natural disasters and unequivocal evidence of global climate change, the need for having a book series for focused and in-depth treatment of remote sensing science and techniques was more than ever felt.

Remote sensing science and technology is a fast growing multidisciplinary research area with a wide range of applications in global earth observation, regional and local environmental monitoring, military and homeland security, and space exploration. Common engineering methods and remote sensing instruments have brought together a large number of scientists and engineers with a wide range of expertise. For this group to function properly there is a much needed cross-fertilization of ideas among the relevant but disparate disciplines. The existing gaps can be narrowed and finally bridged by introducing a book series in remote sensing techniques and applications. In this series, we are interested in publishing textbooks of tutorial nature and books on current and emerging technologies and science of remote sensing. This series will foster interdisciplinary remote sensing engineering and science education and research to satisfy the needs of industry, government, and academia.

The Book Series on Geoscience and Remote Sensing Techniques and Applications intends to cover a broad spectrum of topics related to system instrumentation and engineering techniques, theoretical modeling for the forward and inverse problems, signal and image processing and data management, as well as phenomenology and basic science of the observables. The focus of our series is to introduce and disseminate current and emerging technologies and multidisciplinary science of remote sensing pertaining to global and regional observation of earth, space exploration, military and homeland security to researchers, academicians, and science and engineering students. The content will encompass a wide range from theory to practical implementation of these methods.

Books will be published on an occasional basis, according to the emergence of noteworthy scientific and engineering developments. The material included within each volume will be peer-reviewed rigorously, ensuring strong scientific standards. The procedure for review is as follows. Proposals are first prescreened by the editor, and then if appropriate are sent to at least 5 members of the editorial board related to the areas of research. In some cases, other experts outside of the editorial board members may be asked to review proposals. Based on the recommendation of the reviewers, the editor either rejects the proposal or asks the author to revise and send it back to the editor. If the proposal is recommended by the reviewers, the editor and the IEEE Press Acquisition Editor request a marketing survey from the marketing department.

If you are planning to author a book related to geoscience remote sensing applications and techniques please contact:

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IGARSS 2008 BROUGHT IN THE NEXT GENERATION

“Remote Sensing: The Next Generation” proved to be as forward looking as the technology and innovation it showcased. The 1742 registered conference attendees, 300 guests who participated in the 27th annual International Geoscience and Remote Sensing Symposium held July 6-11 in Boston included children, college students and young professionals, all with their own targeted programming to develop their enthusiasm for Earth science and technology.

Dr. John Kerekes, general co-chair of IGARSS, said the planners wanted to recognize the celebrated excellence of Boston’s (and surrounding communities) 50 colleges and universities. “Boston is a university town, so there is a lot of forward thinking here,” he said. “We wanted to pick up on that.”

Now of Rochester Institute of Technology, he formerly worked in MIT’s Lincoln Lab and knows Boston’s academic culture well. But when he left Cambridge in 2004, he wanted a locally-based partnership so he was joined by Dr. Eric Miller of Tufts University. Kerekes acknowledged that the success of this year’s IGASS is attributed to the tremendous amount of work, of scores of volunteers, including the 20 members of the IGARSS’08 planning committee.

In addition to incorporating Boston’s academic culture into the program, he said the planning committee also recognized that many who attend IGARSS are families with a couple of members, and that they travel long distances to attend. So, a “family-friendly” series of activities was planned.

The planning committee invited Dr. Barry Rock, the founder of Forest Watch at University of New Hampshire, which involves hundreds of middle school students to record carbon levels in white pines, and Dr. Linda Hayden, professor of mathematics and computer science and director of the Center of Excellence in Remote Sensing Education and Research (CERSER) at Elizabeth City State University in North Carolina, to serve as the outreach co-chairs. “We gave them the opportunity and they ran with it,” Kerekes said. “They put together an exciting program. My own children participated. We set up a special registration for under 18. They got a badge and were admitted to the exhibit hall and the sessions.”

Hayden said, “Expanding on the long standing commitment of GRSS to education, the 2008 local organizing committee extended exposure to the world of remote sensing to include both the pre-college community in the Boston area and to the family members of attendees. It is my hope that organizers of future IGARSS Conferences will continue the practice of embracing and nurturing the next generation of remote sensing researchers within the United States and internationally. Congratulations to the local organizing committee and to the GRSS AdCom”

The outreach for children in grades K-12 included a “Behind the Scenes” tour of the Boston Museum of Science, a “Mathematics and Remote Sensing” team competition, and a “find and ask the scientist” scavenger hunt. There were also a career reception attended by 90 college students and four business recruiting presentations, and a luncheon for young professionals who shared a meal and conversation with senior professionals.

The college students who attended were also wowed.

Matt McIndoe, a UMass Amherst student employee at NASA Goddard Space Center, said, “This experience, starting with Goddard, has made all the difference in the world. I liked math, so I became an engineer. But I didn’t know what I wanted to do. I am really thrilled that engineering Earth observations can make a difference. This conference is great. I’ve listened to workshops and looked at the posters. I can really see what’s going on.”

Charles Luther, an independent consultant, is an administrative committee member of the Geoscience and Remote Sensing Society. He said the society has an “interest in increasing the number of minorities, bringing minority students to the society and putting them through the full paces of generating an abstract, having their abstracts reviewed by experts, and, if they pass muster, providing them with funds to attend an IGARSS conference.” If it’s an international conference, they have to write a 3-page paper and present it orally. It then gets published in the conference proceedings. He said seven students attended IGARSS 2008 through GRSS.

Patrina Bly, rising sophomore at Elizabeth City State University, says she chose a math major because she loves it and is good at it. She plans to teach after graduation, but not for long. “I don’t really know what I want to do. This is my little thinking period. Maybe this conference will help.” She was one of about 20 students from ECSU, who traveled to the conference by bus.

Christina Lish, University of Waterloo in Ontario, a master’s degree candidate in geography, attended the conference to learn as much as she could about remote sensing. “I’m getting a good start on my thesis on vegetation in the Canadian
“The arctic,” she said. “I’m really interested in climate change.”

Their professors took their mission seriously, too. Malcolm LeCompte, an Elizabeth City State University associate professor of mathematics and computer science, teaches remote sensing at the graduate level in the applied math master’s program. He also does research involving undergraduate/graduate students in temperature measurement of the polar ice sheets. That’s his day job. At IGARSS he ran an exhibit for ECSU to explain remote sensing to a younger pre-college generation and attract them to science and technology. “Aside from that, I have the chance to interact with colleagues and develop research collaborations,” he said.

And that is the greater beauty of IGARSS, says Kerekes. It’s not just the hundreds of formal presentations, symposia, panels and posters; it’s the informal networking, the conversations in the halls. “You can’t do that by email,” he says.

Next year—Cape Town, South Africa.

CALL FOR FELLOW NOMINATIONS

Nominations are being accepted for the IEEE Fellows class of 2010. The rank of IEEE Fellow is the institute’s highest member grade, bestowed on an IEEE Senior Member who has had an extraordinary record of accomplishments in any of the IEEE fields of interest. The deadline for nominations is 1 March 2009.

Senior Members can be nominated in one of four categories: application engineer/practitioner, research engineer/scientist, educator, or technical leader.

The Fellows Web pages contain information regarding the history of the IEEE Fellows program, the nomination process, access to the Fellows Nomination Kit, lists of Fellows who are eligible to be references and more about the Fellow program. Please visit the Fellows website at http://www.ieee.org/fellows.

GRS-S MEMBERS ELEVATED TO THE GRADE OF SENIOR MEMBER DURING THE PERIOD MAY – JULY 2008

May:  
Jack Cederquist  Southeastern Michigan Section  
Alan Lipton  Boston Section  
Charles Werner  Switzerland Section

Senior membership has the following distinct benefits:

• The professional recognition of your peers for technical and professional excellence.
• An attractive fine wood and bronze engraved Senior Member plaque to proudly display.
• Up to $25.00 gift certificate toward one new Society membership.
• A letter of commendation to your employer on the achievement of Senior Member grade (upon the request of the newly elected Senior Member).
• Announcement of elevation in Section/Society and/or local newsletters, newspapers and notices.
• Eligibility to hold executive IEEE volunteer positions.
• Can serve as Reference for Senior Member applicants.
• Invited to be on the panel to review Senior Member applications.
• Eligible for election to be an IEEE Fellow

Applications for senior membership can be obtained from IEEE website: http://www.ieee.org/web/membership/senior-members/index.html
You can also visit the GRS-S website: http://www.grss-ieee.org
IEEE AWARDS, Major GRS-S AWARDS and FELLOW RECOGNITIONS at the IGARSS 2008 PLENARY SESSION

Werner Wiesbeck, IEEE GRS-S Awards Committee Chair

At the IGARSS 2008 Plenary Session on Monday, July 7th, in the Hynes Convention Center in Boston, Massachusetts, USA, one IEEE Award, and three Major GRS-S Awards were presented, and four IEEE 2008 Fellows were recognized.

IGARSS 2008 was opened with the Plenary Session with distinguished guests, including the IEEE Division IX Director Richard Cox and IEEE President-Elect John Vig. Welcome addresses highlighted our GRS-Society, the IEEE, and the Boston Region. A few pictures with the speakers give an impression from the opening of IGARSS 2008. The IGARSS 2008 Conference General Co-Chairs John Kerekes and Eric Miler presented the impressive figures of one of the most successful IGARSS conferences ever: 2400 abstracts submitted, 1911 papers accepted, >1050 oral presentations, 866 poster presentations, >1750 registered participants.

The IEEE GRS-S President Tony Milne presented detailed data on the GRS-Society and in so doing made everyone aware that GRS members are a minority at IGARSS. He offered a substantial reduction of membership fees to those who sign up for GRS membership during the IGARSS conference.

The IEEE organization was introduced by IEEE President-Elect John Vig. He provided an overview of the IEEE membership and finished with the following two sentences:

• Volunteers are the secret of IEEE’s successes
• Volunteers tend to enjoy a high sense of wellbeing, which in turn makes them healthier and ex- tends their life expectancy!

The opening venue was chosen for the presentation of recognitions at the IEEE level as well as for the IEEE GRS-S Major Awards. After the welcoming addresses, IEEE President-Elect John Vig recognized the 2008 Fellows.

IEEE Fellow Awards

The grade of IEEE Fellow recognizes unusual distinction in the profession and shall be conferred only by invitation of the IEEE Board of Directors upon a person of outstanding and extraordinary qualifications and experience in IEEE-designated fields. The IEEE Bylaws limit the number of members who can be advanced to Fellow grade in any one year to one per mil, that is, 1 in 1000 of the Institute membership, exclusive
of students and affiliates. To qualify, the candidate must be a Senior Member and be nominated by an individual familiar with the candidate’s achievements. Endorsements are required from at least five IEEE Fellows, and an IEEE Society best qualified to judge. For IEEE members not registered in North America the requirements are somewhat less stringent. The IEEE Fellow Committee, comprising 25 IEEE Fellows, carefully evaluates all nominations and presents a list of recommended candidates to the IEEE Board of Directors for the final election.

The following GRS-S members were elevated to the Fellow status effective January 1st 2008:
- Prof. Curt H. Davis from the University of Missouri-Columbia, MO, USA
- Prof. Joel Tidmore Johnson from the Ohio State University, Columbus, OH, USA
- Prof. David G. Long from the Brigham Young University, Provo, UT, USA
- Dr. Didier Henri Massonnet, Centre National Etude Spatial (CNES), Toulouse, France
- Dr. Jay Pearlman from The Boeing Company, Seattle, WA, USA
- Dr. Waymond R. Scott Jr., Georgia Institute of Technology, Atlanta, GA, USA

Prof. Curt H. Davis received his Fellow Award with the citation:
“For contributions to satellite remote sensing.”

Prof. Curt H. Davis was born in Kansas City, MO on October 16, 1964. He received the B.S. degree and Ph.D. degree in Electrical Engineering from the University of Kansas, Lawrence, KS in 1988 and 1992, respectively. Dr. Davis is presently the Naka Endowed Professor of Electrical & Computer Engineering at the University of Missouri - Columbia (UMC) and Director of the Center for Geospatial Intelligence.

Dr. Davis’s primary research involves the use of satellite microwave and optical remote sensing systems for applications in the areas of earth observation and science, ice sheet mapping and change detection, and urban area geospatial information processing. His ice sheet mapping and change detection research has been continuously funded by NASA and/or NSF for more than a decade and he is an internationally recognized expert in the measurement of polar ice sheet change using precision satellite altimeters, the influence of climate on these changes, and the impact of these changes on global sea levels.

Dr. Davis’s research results have been documented in 40 refereed journal publications and 65 symposia presentations and proceedings. Dr. Davis’s most significant scientific results have been published in top scientific journals like Science, Nature, and the Journal of Geophysical Research, while the majority of his technical contributions to the field of remote sensing have been published in the IEEE Transactions on Geoscience & Remote Sensing. He has received numerous awards throughout his career. Examples include the NSF Antarctica Service Medal (1988, 1989), International Union of Radio Science (URSI) Young Scientist Award (1996), and the NASA New Investigator Program (1996-1999). Dr. Davis recently served as the Technical Program Co-Chairman of the 2004 IEEE Geoscience & Remote Sensing Symposium held in Anchorage, Alaska. Dr. Davis is presently serving as an Associate Editor for the IEEE Transactions on Geoscience and Remote Sensing and as a member of NASA’s ICESat Science Team.

Prof. Curt H. Davis was unfortunately not able to be present.

The next one to be recognized was Prof. Joel Tidmore Johnson with the citation:
“For contributions to ocean surface remote sensing using microwave systems.”

Joel T. Johnson received the bachelor of electrical engineering degree from the Georgia Institute of Technology in 1991 and the S.M. and Ph.D. degrees from the Massachusetts Institute of Technology in 1993 and 1996, respectively. He is currently a Professor in the Department of Electrical and Computer Engineering and ElectroScience Laboratory of The Ohio State University. His research interests are in the areas of microwave remote sensing, propagation, and electromagnetic wave theory. He has served as an Associate Editor of IEEE Trans. on Geoscience and Remote Sensing since 2000, and as the chair of the GRSS society’s technical committee on frequency allocation for remote sensing since 2005.

Prof. Joel Tidmore Johnson was unfortunately not able to be present.

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Dr. Johnson is a member of commissions B and F of the International Union of Radio Science (URSI), and a member
of Tau Beta Pi, Eta Kappa Nu, and Phi Kappa Phi. He received the 1993 best paper award from the IEEE Geoscience and Remote Sensing Society, was named an Office of Naval Research Young Investigator, National Science Foundation Career awardee, and PECASE award recipient in 1997, and was recognized by the U. S. National Committee of URSI as a Booker Fellow in 2002.

Unfortunately Prof. Johnson was not able to be present at the Plenary Session.

The next one to be recognized was Prof. David G. Long with the citation:

“For contributions to systems and applications of Radar scatterometry and synthetic aperture radar in land and ice studies.”

David G. Long (S’80–SM’98) obtained his Ph.D. in Electrical Engineering from the University of Southern California in 1989. From 1983 to 1990 he worked for NASA's Jet Propulsion Laboratory where he developed advanced radar remote sensing systems. While at JPL he was the Project Engineer on the NASA Scatterometer (NASCAT) project, which flew from 1996 to 1997. He also managed the SCANSCAT project, the precursor to Sea Winds, which was launched in 1999 and 2002. He is currently a Professor in the Electrical and Computer Engineering Department at Brigham Young University where he teaches upper division and graduate courses in communications, microwave remote sensing, radar, and signal processing and is the director of the BYU Center for Remote Sensing. He is the principle investigator on several NASA-sponsored research projects in remote sensing. He has numerous publications in signal processing and Radar scatterometry. His research interests include microwave remote sensing, radar theory, space-based sensing, estimation theory, signal processing, and mesoscale atmospheric dynamics.

Dr. Long has received the NASA Certificate of Recognition several times. He is an Associate Editor for the IEEE Geoscience and Remote Sensing Letters.

The next one to be recognized was Dr. Didier Henri Massonnet with the citation:

“For contributions to space-based synthetic aperture radar.”

Didier Massonnet spent all his career in CNES. After studying at the Ecole Polytechnique and The Ecole Supérieure des Techniques Avancées, he completed a one year stay at the Jet Propulsion Laboratory on the data processing of the Sir-B radar mission. He then developed software and image quality techniques for airborne and space-borne imaging radar and worked on system designs for Synthetic Aperture Radar missions. He took an early and important part in the development of radar interferometric techniques, especially in their application to ground motion monitoring.

His activities included educational aspects such as training courses, Ph.D. work supervision as well as conferences and writing for popular science magazines such as Scientific American. Didier Massonnet received a Ph.D. Professorship from the University of Toulouse. He has authored or co-authored several books, both in professional and popular science domains.

Dr. Massonnet acted as General Chairman of the IGARSS 2003 conference, which was held in Toulouse, France. The conference attracted about 1500 delegates in spite of the tense international situation of that time.

He received several awards, including one from the French Academy of Science and the Appleton Prize attributed every four years by URSI. He has filed several patents, including one for the Interferometric Cartwheel, seen as a relatively cheap way of achieving or updating global, high quality terrain models by using signals of opportunity with micro-satellites.

Outside of the radar domain, Dr. Massonnet proposed new satellite concepts for cheap earth observation as well as a new concept for protecting the earth against threats by celestial bodies. He is currently in charge of the PHARAO project, an ultra cold atomic clock of unprecedented accuracy to be embarked on the International Space Station.

Because of other business Dr. Massonnet was unable to attend IGARSS.

The next one to be recognized was Dr. Jay Pearlman with the citation:

“For leadership in space-based earth observing systems.”

Jay S. Pearlman recently retired as Chief Engineer of NCOC&EM at Boeing and as a Boeing Technical Fellow. He has a Ph.D. from the University of Washington and a B.S. from the California Institute of Technology. His background
includes sensors, remote sensing and information systems. He has been Deputy Program Manager and PI for the first science grade space-based imaging spectrometer, Hyperion, and was a leader of the international Science Team. Jay was Chief Scientist on the Boeing Landsat Data Continuity Mission and Chief Architect on the Boeing GOES-R architecture study. Dr. Pearlman has more than 70 publications and 25 US and international patents. He has given Keynote addresses at international conferences on Ocean Engineering and Systems Engineering. He is Chair of the Oceanic Engineering technical committee on Global Earth Observation System of Systems and has been the lead for a series of global workshops (20 in 2005-2008) addressing the user needs for information systems for data management and communication. Jay received an IEEE Special Recognition Award 2006 for his work with the IEEE Committee on Earth Observation.

He is a Fellow of the IEEE. He is the GRSS VP for Information Resources and is a member the GRSS Executive Committee. He is Chair of the TAB Committee on Earth Observation and Principal IEEE delegate to International Group on Earth Observation. He is Co-Chair of the international GEO Architecture and Data Committee, which is defining the GEOSS infrastructure. Dr. Pearlman is also on the National Academies Ocean Studies Board. He is active in promoting systems architecture and information system development for large-scale national and global applications including advancing ocean and coastal information systems.

The next one to be recognized was Dr. Waymond R. Scott Jr. with the citation:

“For contributions to the detection of buried objects using ground penetrating Radar.”

Waymond R. Scott received the Ph.D. degree in electrical engineering from the Georgia Institute of Technology where he is currently Professor of Electrical and Computer Engineering. His research involves the interaction of electromagnetic and acoustic waves with materials. This research spans a broad range of topics, including the measurement of the properties of materials, experimental and numerical modeling, and systems for the detection of buried objects. Currently, his research is concentrated on investigating techniques for detecting objects buried in the earth. This work has many practical applications, for example, the detection of underground utilities, buried hazardous waste, buried structures, unexploded ordnance, and buried land mines. Among other awards and recognitions, he received the 2001 Symposium Prize Paper Award for the best paper presented at the IEEE 2001 International Geoscience and Remote Sensing Symposium, and the 1986 Andrew Chi Prize Paper Award for the best paper published in the IEEE Transactions on Instrumentation and Measurement.

IEEE GRS-S Major Awards

The call for nominations for the GRS-S Distinguished Achievement Award, GRS-S Outstanding Service Award and the GRS-S Education Award are published in the GRS-S Newsletter. Any member, with the exception of GRS-S AdCom members, can make nominations to recognize deserving individuals. Typically the lists of candidates comprise five to seven names. An independent Major Awards Committee makes the selection, which is approved by the GRS-S AdCom.

IEEE GRS-S Distinguished Achievement Award

The Distinguished Achievement Award was established to recognize an individual who has made significant technical contributions, within the scope of GRS-S, usually over a sustained period. In selecting the individual, the factors considered are quality, significance and impact of the contributions; quantity of the contributions; duration
of significant activity; papers published in archival journals; papers presented at conferences and symposia; patents granted; and advancement of the profession. IEEE membership is preferable but not required. The award is considered annually and presented only if a suitable candidate is identified. The awardee receives a plaque and a certificate.

The 2008 IEEE GRS-S Distinguished Achievement Award is presented to Leung Tsang from the University of Washington Seattle, WA, USA with the citation: “For outstanding research in Electromagnetics for Remote Sensing.”

Leung Tsang (F’90) was born and finished high school in Hong Kong. He received the S.B., S.M., and the Ph. D. degrees from the Department of Electrical Engineering and Computer Science of MIT. Presently, he is a Professor and the Chairman of the Electrical Engineering Department at the University of Washington where he has taught since 1983.


Leung Tsang has published more than 200 journal articles. His current research interests are in remote sensing and geoscience applications, signal integrity in interconnects and computational electromagnetics. From 1996 to 2001, Leung Tsang was the Editor-in-Chief of the IEEE Transactions on Geoscience and Remote Sensing (TGARS). He was the General Chairman of the 1998 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), the Technical Program Chairman of the 1994 IEEE Antennas and Propagation International Symposium and URSI Radio Science Meeting and the Technical Program Chairman of the 1995 Progress in Electromagnetics Research Symposium.

Leung Tsang is a Fellow of the Optical Society of America. He received the IEEE Geoscience and Remote Sensing Society Outstanding Service Award in 2000. He was a recipient of the IEEE Third Millennium Medal in 2000. He is an Honorary Professor of Electronic Engineering at City University of Hong Kong and an Adjunct Professor of Zhejiang University, China. Since March 2008, he has been the Acting President of the Electromagnetics Academy. He was President of the GRSS for the 2-year term in 2006-2007. Presently, he is serving a 2-year term, 2008-2009, as the Chair of the IEEE-TAB Periodicals Committee.

IEEE GRS-S Outstanding Service Award

The Outstanding Service Award was established to recognize an individual who has given outstanding service for the benefit and advancement of the Geoscience and Remote Sensing Society. The award shall be considered annually but will not be presented unless a suitable candidate is identified. The following factors are suggested for consideration: leadership innovation, activity, service, duration, breadth of participation and cooperation. GRS-S membership is required. The awardee receives a certificate.

The 2008 Outstanding Service Award is presented to Prof. Wooil M. Moon from the University of Manitoba, Winnipeg, MB, Canada with the citation: “In recognition of his outstanding service for the benefit and advancement of the IEEE Geoscience and Remote Sensing Society.”

Wooil M. Moon (S’68–M’82–SM’86–F’03) received the B.Sc. degree from Seoul National University, Seoul, Korea, in 1964, the M.Sc. degree from Columbia University, New York,
in 1972, and the Ph.D. degree from the University of British Columbia, Vancouver, BC, Canada, in 1976. He has been teaching satellite geophysics at the University of Manitoba, Winnipeg, MB, Canada, since 1979. He has been teaching and supervising graduate students at the Seoul National University since September 1999. Dr. Wooil M. Moon was elected a member of the Korean Academy of Science and Technology (KAST) in 2004. He served as the General Chairman of IGARSS 2005 (Seoul, Korea) and he was elected to the IEEE GRS-S AdCom in 2007. His research interest includes polarimetric SAR theory and applications, spatial data fusion and reasoning, Radar altimetry, SAR interferometry and geophysical data mining.

Dr. Moon is a member of AGU, IEEE, SEG, CGU, RAS (U.K.), GSK, and KSRS.

IEEE GRS-S Education Award

The Education Award was established to recognize an individual who has made significant educational contributions to the field of GRS-S. In selecting the individual, the factors considered are significance of the educational contribution in terms of innovation and the extent of its overall impact. The contribution can be at any level, including K-12, undergraduate and graduate teaching, professional development, and public outreach. It can also be in any form (e.g., textbooks, curriculum development, educational program initiatives). IEEE GRS-S membership or affiliation is required. The awardee receives a certificate.

The 2008 Education Award is presented to Prof. Yoshio Yamaguchi from the Niigata University, Japan with the citation:

“In recognition of his significant educational contributions to Geoscience and Remote Sensing.”

Yoshio Yamaguchi received the B. E. degree in electronics engineering from Niigata University in 1976, and the M. E. and Dr. Eng. Degrees from Tokyo Institute of Technology, Tokyo, in 1978 and 1983, respectively. After graduation in 1978, he joined the Faculty of Engineering, Niigata University as an assistant professor. He is now a Vice Dean of the Engineering School, and Director of the Integrated Information Center of the University, as well as a Professor of Information Engineering.

His interests are in the field of Radar polarimetry, microwave sensing and imaging. He has served as Chair of IEEE GRS-S Japan Chapter (02-03), Vice Chair (00-01), and Chair of URSI-F Japan since 2006. In addition, he has been serving as GRS-S Newsletter Editorial Board member, and Paper Award Committee member, of the IEEE GRS-Society. He is a Fellow of IEEE, the Institute of Electronics Information and Communication Engineers (IEICE, namely Japan version of IEEE), and of The Electromagnetics Academy.


The next award is an IEEE-level award.

2008 IEEE Electromagnetics Award

The 2008 IEEE Electromagnetics Award was established in 1998 for outstanding accomplishments in advancing the fields of Radar technologies and is presented this year for the 10th time, with famous prior recipients.

The 2008 IEEE Electromagnetics Award, the 10th, is presented to Prof. Dr. Werner Wiesbeck from the Universität Karlsruhe (TH) Karlsruhe Institute of Technology, Karlsruhe, Germany with the citation:

“For innovative electromagnetic applications in communication systems, remote sensing, and EM compatibility.”

Werner Wiesbeck (SM’87–F’94) received the Dipl.-Ing.
M.S.E.E.) and the Dr.-Ing. (Ph.D.E.E.) degrees from the Technical University Munich in 1969 and 1972, respectively. From 1972 to 1983 he was with AEG-Telefunken in various positions including that of head of R&D of the Microwave Division in Flensburg and marketing director Receiver and Direction Finder Division, Ulm. During this period he had product responsibility for mm-wave radars, receivers, direction finders and electronic warfare systems. From 1983 to 2007 he was Director of the Institut für Höchstfrequenztechnik und Elektronik (IHE) at the University of Karlsruhe (TH), where he had been Dean of the Faculty of Electrical Engineering and he is now Distinguished Scientist at the Karlsruhe Institute of Technology. Research topics include electromagnetics, antennas, wave propagation, communications, Radar and remote sensing. In 1989 and 1994, respectively, he spent a six months sabbatical at the Jet Propulsion Laboratory, Pasadena. He is a member of the IEEE GRS-S.
Clearing Up Confusion in Fellows Categories

Even though it’s been nearly three years since nominations were first accepted for the newest Fellows category, Application Engineer/Practitioner, few have been nominated. Out of the 295 Fellows named in 2008, only 20 were from the practitioner group compared to the 15 in the 268 member Class of 2007.

One reason might be because people are still unsure about the type of work that qualifies someone for this category, says 2003 IEEE President Michael Adler and chair of the IEEE Board-appointed 2008 Fellow Ad Hoc Committee, which reviews the Fellows process.

“Many nominators are checking off the Research Engineer/Scientist box on the nomination forms when perhaps they should be marking the Application Engineer/Practitioner category,” he says. “The position of some nominees is identified to be that of a research scientist or engineer, but the work for which they are being cited could be considered that of a practitioner.” Adler explains.

There were 225 Fellows from the research engineer/scientist group in the 2008 class.

To help clear up any confusion and help boost the number of Fellows from industry, here is a primer of the type of work that qualifies for the application engineer/practitioner category.

The person has to be an IEEE senior member in good standing with five years of service in any grade of membership excluding affiliates, and who has made significant contributions in any of these areas: product development, systems, applications or operations, project management or construction, process development, manufacturing innovations, or codes or standards development.

Adler notes that it could be someone who develops a process to produce a product that may have been designed by others, and that has had a major impact.

For example, among Fellows in the Application Engineer/Practitioner category, were those who invented and standardized elements of optical transmission systems, developed applications for satellite data and airborne LIDAR (light detection and ranging) imagery, researched signal processing for acoustics and sound reproduction, and provided technical leadership of a project that turned novel concepts for computer architecture into commercial processors.

Nominations for the class of 2010 are now being accepted. The deadline is 1 March 2009. Nomination instructions, forms and additional information are available on the Fellows web site at http://www.ieee.org/fellows
Report from MicroRad’08
By Simonetta Paloscia and Giovanni Macelloni

The 10th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment (MicroRad 2008) was held in Firenze, Italy from 11 to 14 March 2008. This was the tenth meeting in a series that began in Rome in 1983, with venues alternating in Italy and the United States:

- Rome “La Sapienza,” Italy: 1-2 March 1983
- Florence, Italy: 9-11 March 1988
- Boulder, Colorado, USA: 14-16 January 1992
- Rome “Tor Vergata,” Italy: 14-17 February 1994
- Boston, Massachusetts, USA: 4-6 November 1996
- Florence, Italy: 15-18 March 1999
- Boulder, Colorado, USA: 6-8 November 2001
- Rome “La Sapienza,” Italy: 24-27 February 2004
- Puerto Rico, USA: 28 February-3 March 2006.

Following the initial meeting in 1983, MicroRad has progressively grown to this day. The microwave radiometry community has been invited to this meeting to present new research results and instrument designs in the field of remote sensing of land, ocean and atmosphere. The response was enthusiastic and we received more than 200 excellent abstracts, on which we gave a detailed review. The agenda of the meeting was very intense and the final program included 80 oral papers distributed over 8 sessions and as many posters divided in two sessions, for a total of 138 participants coming from more than 20 countries all over the world (Fig.1-2).

Now that MicroRad 2008 is put in archive, first of all we would like to express our gratitude to all the people who helped us in making it a successful meeting, thanks to their kind attendance, the presentation of interesting papers and posters, the participation in MicroRad events, and the accomplishment of various tasks (in particular, the whole Steering Committee together with the session organizers, the paper reviewers, the session chairs, etc.). Moreover, we wish to thank the numerous institutions which co-sponsored the meeting and allowed the organization of a rich social program: IEEE Geoscience and Remote Sensing Society (GRSS), IEEE, IEEE Italy Section, IEEE Geoscience and Remote Sensing Society - Central Italy Chapter (GRS-S29), URSI (Union Radio-Scientifique Internationale) Commission F, ASI (Agenzia Spaziale Italiana), ESA (European Space Agency), JAXA (Japan Aerospace Exploration Agency), AIT (Associazione Italiana di Telerilevamento), Thales Alenia Space, and Ente Cassa di Risparmio di Firenze.

Thanks to sponsors’ contributions, limited funds (5000 €) intended as travel support for students submitting a paper to the meeting have also been available. A review committee considered all of the applications on an individual basis, and distributed the funds at the meeting (500 € to ten students).

The meeting was opened by a very interesting presentation of Prof. Rodolfo Guzzi of the Italian Space Agency on the COSMO-SkyMed program (Fig.3).

In addition to the technical program, we have endeavoured to organize a rich social program, starting with the Reception...
on Tuesday, March 11th, at Orsanmichele, one of the most important monuments in Florence, which is a space usually closed to the general public. So we hope the participants enjoyed being the only ones allowed in! (Fig 4-5)

On Wednesday, March 12th, Gian Paolo Muntoni enlivened a casual buffet dinner with a piano recital at Teatro del Sale.

On Thursday, March 13th, the Award Social Dinner took place at Grand Hotel. During this event, 3 Fiorini d’Oro (Golden Florins) were handed out: in memory of Giovanni d’Auria, who was the promoter of the meeting back in 1983, and to Tom Schmugge and Anatoly Shutko for their invaluable work on soil moisture research (Fig. 6).

Moreover, during the banquet, a 1000 € prize from the Fondazione Ugo Bordoni (FUB), entitled to Giovanni d’Auria, was assigned to Corinne Straub, of Berne University, and Domenico Cimini, of the University of L’Aquila, as authors of the best papers on atmospheric topics presented at the meeting (Fig.7):

- “Development of a 22 GHz Correlating Radiometer for the Observation of Stratospheric Water Vapor” by C. Straub, A. Murk, N. Kampfer, D. Zardet, and B. Stuber,
- “Temperature and Humidity Profiling in the Arctic using Millimeter and Submillimeter-wave Radiometry,” by D. Cimini, E.R. Westwater, A. Gasiewski, M. Klein, and V. Leuki.

Last but not least, on Friday, March 14th, in the afternoon, a wine and cheese reception closed the meeting with a very
pleasant farewell. On this occasion the following six best posters were awarded with a “luxurious” prize (a bottle of Brunello wine!) (Figs. 8 and 9):

- “Deriving Winds at Cloud-base Height using Infrared Camera and Microwave Radiometer,” by E. Brocard, M. Schneebeli and C. Mätzler
- “Observations of the Temporal and Spatial Distribution of Water Vapour and Clouds with a Scanning Microwave Radiometer,” by S. Kneifel, U. Loehnert, S. Crewell, and J. Schween
- “1D-Var Retrieval of the Wet Tropospheric Correction in Coastal Regions,” by L. Eymard, E. Obligis, and C. Desportes

The Proceedings of the conference have been published in the IEEE Xplore and in a CD-Rom that has been sent to the conference participants.

We would like to focus your attention on the fact that GRSS AdCom approved a Special Issue of the IEEE Transactions on Geoscience and Remote Sensing (TGARS) dedicated to a selection of the papers presented at the meeting. The proposed Special Issue, which will be published most likely in August 2009, is an extension of similar initiatives undertaken by previous MicroRad meetings. The most recent MicroRad meeting, held in Puerto Rico in February/March 2006, published a TGARS Special Issue in July 2007, in two parts of the same number, containing 36 papers. The Guest Editors of the MicroRad 2008 Special Issue are:

- Giovanni Macelloni, CNR-IFAC, Florence (Italy)
- Simonetta Paloscia, CNR-IFAC, Florence (Italy)
- Paolo Pampaloni, CNR-IFAC, Florence (Italy)
- Martti Hallikainen, HUT, Espoo (Finland)
- Ed Westwater, University of Colorado at Boulder (USA)

We were honored to host the meeting in Firenze and we hope that everybody enjoyed the conference, the social events and the town. The local organizing committee, tired but happy, greeted the participants with a warm goodbye at the end of the meeting (Fig.10).

At the end of the meeting, the Steering Committee has decided that the 11th Specialist Meeting will be organized in 2010 in Washington DC by R. Lang and D. Le Vine. Our best wishes for a successful symposium and we look forward to seeing you again at Microrad 2010!

Simonetta Paloscia and Giovanni Macelloni
Meeting Chairs
(President’s Message from IGARSS continued from page 4)

Engineering journals we are now ranked 13 out of 125, and moving up the scale. So we have a very successful publication.

In 2004 under the leadership of Bill Emery we set up Geoscience and Remote Sensing Letters (GRSL), it now has an impact factor of 1.14. So, that’s a pretty good achievement in the first four years of this journal. We publish a Newsletter with a lot of information that is current, and this comes out four times a year.

For the new journal (JSTARS) that we are co-sponsoring along with the IEEE Committee on Earth Observation (ICEO), the technical co-sponsors, the first edition will be out on IEEE Xplore in the next couple of weeks. We are committed to working with ICEO particularly in relation to the GEO, the group on Earth observation or as you may understand it as the group on Earth Observing System of Systems (GEOSS). There is a great opportunity here for you who want to publish a paper that has an application basis. We are calling for your submission of manuscripts and if you have something sitting there that you want to publish please get in touch with the editor through the web-site.

We are also sponsoring an IEEE book series under the editorship of Kamal Sarabandi of the University of Michigan. And again if you just happen to have a book sitting in the locker that you want to publish, have a talk with Kamal. The GRSS has a website which keeps up-to-date information on the society. It has recently been redesigned to make outreach easier. We are moving to institute things like ‘ask an expert’ so that you can get technical questions answered. There will be a new section highlighting individuals with recent Ph. D. degrees. We’re looking to improve the amount of information on employment opportunities and certainly wanting to liaise more effectively with the private industry sector.

There are also a number of technical committees; the current five Technical Committees are the Instrumentation, Data Fusion, Data Archival, User Applications in Remote Sensing, and Frequency Allocation in Remote Sensing. They’re available to all members, all you have to do is indicate that you want to be member and you’re in the network.

We sponsor a number of joint chapters around the world. IEEE is organized in regions. Regions 1 – 6 are within the USA, Canada is Region 7, Europe and the Middle East is Region 8, Latin America is Region 9, and Asia-Pacific is Region 10. At the moment we have 28 GRSS chapters and another 10 where we share the Chapters with other IEEE organizations. So if you are in a part of the world where you’d like to set up a chapter there is an opportunity to be more involved with GRSS.

Education; there are online audio lectures, and we have online tutorials. In this IGARSS meeting we are having live Web-ex broadcast from some of the sessions. Student training and grants: every IGARSS we allocate US$50,000 towards bringing students from all around the world to IGARSS so they can experience the conference, participate and present their work. There is a distinguished speakers program. Just recently this has been added to the website so the speakers may not necessarily have to move from point A to point B.

We’ve had a very successful trial of this with our Italian colleagues and Keith Raney.

We are also attempting to engage the community. The
CALL FOR 2009 IEEE International Geoscience and Remote Sensing Symposium

July 13-17, 2009 Cape Town, South Africa
Website: http://www.igarss09.org/
Abstract Submission: http://www.igarss09.org/Papers.asp
**Abstract Submission Deadline January 4th, 2009**

On behalf of the IEEE Geoscience and Remote Sensing Society, the IGARSS 2009 Organizing Committee, and the African remote sensing and earth science communities, we are pleased to welcome you to Cape Town for IGARSS 2009! IGARSS'09 will be the 29th annual symposium for GRSS and will continue the excellent tradition of gathering world-class scientists, engineers and educators engaged in the fields of geoscience and remote sensing to meet and present results of their latest research activities. Truly an international event, we anticipate about one thousand participants from all over the world to enjoy a week of technical sessions, tutorials, exhibits and social activities. This is the first time the event has been held on the African continent, and represents a unique opportunity to interact with a wide range of African remote sensing practitioners and discuss the issues relevant to developing nations. “Semper aliquid novi Africam adferre” - “Africa always brings something new” (Pliny the Elder)

Participation in IGARSS is open to all individuals interested in or working in the fields of geoscience and remote sensing. Abstracts received by the deadline will be considered for program placement under the standard peer review process. Late abstracts cannot be accepted due to the large number of submissions and short review schedule. The IEEE IGARSS 2009 Technical Program Committee will organize all accepted abstracts into either oral or interactive poster sessions based upon their potential contribution to the symposium, the mode in which the material can best be presented, and the composition of high-quality oral and interactive sessions. Attention publishing authors! Only accepted papers that are presented at the Symposium in Cape Town will be published in the symposium proceedings.

Abstract Submission Instructions
Abstract deadline is January 4, 2009 for both contributed and invited submissions.
• Log in to www.igarss09.org to submit abstracts (only online submissions will be accepted for review).
• Instructions on selecting topics for submissions will be included on the website.
• All abstracts must be written in English and contain a minimum of 500 words to be fairly reviewed.
• The maximum page limit for all abstracts is two single sided pages. Use Times New Roman font, 11 or 12 point, 1.5 line spacing. Paragraphs 6 mm indent on first line, 6 pt spacing after each paragraph.
• Include paper title (in bold, sentence case), presenting author name, affiliation and email address at the top of each abstract.
• Abstracts should state clearly and concisely the problem, methodology used and central conclusions.
• Abstracts should include a bibliography to help reviewers place the contributions of the work into context.
• A maximum of three abstracts may be submitted by each presenting author, including both general and invited sessions.
• Authors are responsible for checking the status of their abstract by visiting the symposium website, www.igarss09.org after March 15, 2009. Acceptance letters will be sent via email only, and the results posted on the website.

Application Themes
The IGARSS'09 Technical Program will highlight themes that have a strong link to the development of the African continent, as well as themes that have international relevance.

A call for invited sessions is made (deadline 14 September 2008). Please contact the Chair, Technical Program Committee directly, with a proposal for a session. A short justification should be made to assist in selection of a limited number of invited sessions. Successful applicants will be informed on 26 October 2008, to allow chairs to solicit papers for their sessions.

More information on the themes may be found on http://www.igarss09.org.
The 2nd International Symposium
Microwaves, Radar
and Remote Sensing
22-24 September 2008,
Kiev, Ukraine

Organized in the framework of the 3rd World Congress
"Aviation in the 21st Century. Aviation and Space Technology"
by the National Aviation University, Kiev, Ukraine
in collaboration with IEEE Ukraine Joint Chapters

Symposium Chair:
Felix Yanovsky, National Aviation University

Contribution Submission:
before May 15, 2008 - Camera-ready 4-page paper
E-mail: mrs2008@ieee.org; yanovsky@i.com.ua
Web Address: http://congress.rus.edu.ua/mrs08/

2008 International Workshop on:
Microwave Remote Sensing for Land
Hydrology Research & Applications

October 20-22, 2008
Oxnard, California, USA

Organized by:
Jet Propulsion Laboratory &
University of California Santa Barbara

Registration and Abstract deadline:
June 30, 2008
Registration Fees:
General: $250
Students: $175
Web Site:
http://microwave-workshop.jpl.nasa.gov
Email information:
microwave.workshop@jpl.nasa.gov

ICAST 2008
2nd International Conference on Advances
in Space Technologies
Space in the Service of Humanity
22-30 November, 2008
Islamabad-Pakistan

Institute of Geographical Information System (IGIS)
National University of Sciences & Technology (NUST)
In collaboration with

IEEE & GRSS

Conference Chair:
Dr. Umar Khatri, Director General IGIS

Topic Area:
Space Technologies and Satellite Communications
Space Operations, Science and Technology
Space Mission Planning and Applications
Geospatial Information Systems
Remote Sensing of Space Technologies

Paper Submission:
July 31, 2008

5th IAPR Workshop on
Pattern Recognition in Remote Sensing
(PRRS 2008)
December 7, 2008
Tampa, Florida, USA

Chairs:
S. Aksu, Bilkent University (Turkey)
N. H. Yoon, Mississippi State University (USA)
D. A. Clausi, University of Waterloo (Canada)

Important dates:
Paper submission: June 16, 2008 (4-page paper; peer-review)
Notification of acceptance: July 31, 2008
Final papers due: August 8, 2008
Early registration deadline: August 8, 2008

Host: IAPR Technical Committee 7—Remote Sensing
In conjunction with: ICPR 2008
Co-sponsors: IAPR and IEEE GRSS

For workshop and submission details:
http://www.iapr-tc7.org/prs08/
IGARSS 2009 • Cape Town South Africa
Harald Homberg, Rand Afrikaans University
harald@geosciences.wits.ac.za, General Chairman

IGARSS 2010 • Honolulu, Hawaii
Kaven St. Germain, NPOESS IPO
(kaven.stgermain@noaa.gov)
and Paul Smits, ISPIA (paul.smits@jrc.it),
General Co-Chair

IGARSS 2011 • Sendai Japan
Masayuki Sato, Center for Northeast Asian Studies
masayuki.sato@se. Tohoku.ac.jp, General Chairman

Image credit: NASA GFSC
weather radar experiment was opened recently in New York. We are thankful to David Weissman for organizing this. It is an interactive display which allows young people to understand rain drops and their interaction with electromagnetic radiation. There’s a booth in the area which will explain this and there is video and it will show you how this museum exhibit works. We are very pleased about that.

We have also taken the opportunity to write and to recognize the contributions of society members to the IPCC Fourth Assessment Report where we encouraged the voracity and rigor of the science. We are not involved in making a political statement but certainly confirming the science.

OK, so I’ve given you a number of highlights of what GRSS is about and its activities. So I want to put to you that there are some society value propositions. What would make you want to become a member of GRSS, or more importantly looking at the list, why aren’t you member of GRSS of already? Because there are the opportunities, both from an academic, or from a business, or even from a scientific point of view, of the professional development that we offer.

You can see the educational qualifications, the current employment of the GRSS members (on screen). The biggest challenge is that well over 50% of the members are now outside of the USA; the fastest growing sector is within the Asia-Pacific region. So, that presents us with a challenge to be able to engage these communities more effectively within our discipline.

Alright now here’s what you’ve been waiting for, the membership promotion. GRSS is offering all non-member registrants at IGARSS’08 that have never been a member of the society, a free GRSS affiliate membership for 2009. In other words we are giving you US$83. So if the exchange rate doesn’t go down, that’s not a bad contribution right?

We will give you the membership, free.

If you take up that membership think of the savings that you will make on next year’s IGARSS. I don’t have the registration fees for IGARSS in Cape Town next year but if for example you would have been a member for Boston you would have saved US$200 on your registration. So not only are we giving you money, we’re saving you money.

If you are interested all you need to do is go to the GRSS booth in the exhibition area and sign up and you’ll be a member of the society.

Eric (Miller) has already mentioned the special poster session on technology and recent disasters. I compliment the organizing team and Melba Crawford particularly because within the space of 3 weeks they identified 32 participants who were willing to provide posters for this session. Now we talk a lot about real time operations in remote sensing, OK? Wouldn’t it be great if we could keep this going (pointing on screen). This is something that my university has been involved in – looking at the displacement fringes from earthquakes in China. The red dots you see are the number of aftershocks that have occurred. There are more there on the flooding in Myanmar or Burma and also the floods in the Midwest.

We were saddened in March this year to learn of the unexpected death of a much esteemed colleague, Jin Au Kong from MIT. Jin had been a very ardent supporter and a big contributor to this society. There will be a memorial session of papers on Tuesday afternoon and all those that had known Jin or would like to come are very much encouraged to do so.

Thank you very much for listening to me and I hope you have a great conference.
Development of accurate precipitation retrieval methods has been impeded by lack of reliable global ground truth. Surussavadee and Staelin [1, 2], developed a global precipitation rate retrieval algorithm for the Advanced Microwave Sounding Unit (AMSU), which observes 23–191 GHz. The algorithm was trained using a numerical weather prediction model (MM5) for 106 globally distributed storms that predicted brightness temperatures consistent with those observed simultaneously by AMSU [3]. Neural networks were trained to retrieve hydrometeor water-paths, peak vertical wind, and 15-minute average surface precipitation rates for rain and snow at 15-km resolution at all viewing angles. Different estimators were trained for land and sea, where surfaces classed as snow or ice were generally excluded from this study. Surface-sensitive channels were incorporated by using linear combinations (principal components) of their brightness temperatures that were observed to be relatively insensitive to the surface, as determined by visual examination of global images of each brightness-temperature-spectrum principal component.

The cover image shows in columns from left to right: 1) AMSU surface precipitation rate (RR) retrievals (mm/h for 15-minute integration; 15-km resolution), 2) MM5 RR truth, and 3) retrieved MM5-simulated RR. From top to bottom: a frontal system over France at 1003 UTC 2 January 2003 (some footprints are snow covered (light blue)); a Typhoon over Guam at 1625 UTC 8 December 2002; and a system over Florida at 2344 UTC 31 December 2002.

Surface precipitation rate retrievals using MM5/TBSCAT-simulated TB’s agree reasonably well with MM5 ground-truth for all types of precipitation, although in each storm the retrieved AMSU/MM5 precipitation zone typically extends slightly beyond that of the MM5 truth, but with generally lower peak values that minimize overall rms errors. The retrieved non-glaciated precipitation over the North Atlantic agrees reasonably well with MM5 ground-truth even though it has no significant ice-scattering signature and therefore could not be detected using 183±7 GHz as a flag for precipitation. Images also show that AMSU/MM5 retrievals over footprints classified as snow-covered land or sea ice match MM5 truth if retrieved rates below ~0.3 mm/h are presumed to be zero. Unfortunately, retrievals of precipitation over snow and sea ice are compromised by occasional false alarms in dry air (not illustrated here).


Image credits: Image by C. Surussavadee and D. H. Staelin
## Upcoming Conferences

See also [http://www.techexpo.com/events](http://www.techexpo.com/events) or [http://www.papersinvited.com](http://www.papersinvited.com) for more conference listings.

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<td><strong>Oceans 2008</strong></td>
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<td><strong>The 2nd International Symposium on Microwaves, Radar and Remote Sensing</strong></td>
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<td><strong>Second International Conference on Advances in Space Technologies</strong></td>
<td>Islamabad, Pakistan</td>
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<td><strong>Indian Conference on Microwaves, Antennas, Propagation and Remote Sensing (InMARS 2008)</strong></td>
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<td><strong>The International LIDAR mapping Forum (LIDAR09)</strong></td>
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