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**Monday PM AP Session 9**      **Salon 1/2**

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**Scattering II**

*P.-S. Kildal and K. A. Michalski*

- 1:20 An FFT T-Matrix Method for Scattering Solutions from Inhomogeneous Bodies and Random discrete Scatterers  
*W. C. Chew\*, J. H. Lin, X. G. Yang, University of Illinois, Urbana*
- 1:40 Bandwidth of Some Artificially Soft Surfaces  
*Zhinong Ying\*, Per-Simon Kildal, Chalmers University of Technology, Sweden, Ahmed A. Kishk, University of Mississippi, USA*
- 2:00 Decomposition of Incident Polarization for the Analysis of Anisotropic Surfaces Made of Strips on a Grounded Dielectric Slab  
*Shuguang Chen\*, Makoto Ando, Naohisa Goto, Tokyo Institute of Technology*
- 2:20 Analysis of Electromagnetic Scattering by Periodic Strips on a Grounded Dielectric Slab  
*Chang Won Lee\*, Young Ki Cho, Kyungpook National University, Korea*
- 2:40 Analysis of EM Scattering by Conducting Bodies of Revolution in Layered Media Using the Discrete Complex Image Method  
*A. K. Abdelmageed, K. A. Michalski, Texas A&M University*
- 3:00 BREAK
- 3:20 Electromagnetic Scattering by a Conducting Sphere Partially Buried in a Ground Plane  
*A-K Hamid, King Fahd University of Petroleum and Minerals*
- 3:40 Development of a Blazed Reflection Grating with Enhanced Bandwidth and Angular Range Giving Circularly Polarised Backscattering  
*Thomaskutty Mathew, Saji Stephen, C. K. Aanandan, P. Mohanan, K. G. Nair, Cochin University of Science and Technology*
- 4:00 The Chirality from Microstructure of Conductive Twist Strips  
*M. Zhang, Nanjing Aero & Astro University, W-X. Zhang, Southeast University*
- 4:20 Scattering and Mode Conversion by a Penetrable Cylinder in an Asymmetric Slab Waveguide  
*Svetlana V. Boriskina\*, Alexander G. Yarovoy, Kharkov State University, Ukraine*



- 4:40 Scatterers with Resonant Cavities  
*V. Vereney\*, A. Poyedinchuk, Institute for Radiophysics & Electronics, Ukrainian Academy of Sciences, Ukraine*

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**Monday PM AP Session 10 Salon 3**

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**Adaptive Antennas II**

*D. Madurasinghe and F. Nan*

- 1:20 SVD Reconstruction Algorithm and Determination of Source Number by Frequency Domain Information  
*Fangyuan Nan, Florida State University*
- 1:40 An Efficient Joint Direction of Arrival and Frequency ML Estimator  
*M.A. Zatman\*, MIT Lincoln Lab, H.J. Strangeways, University of Leeds*
- 2:00 Real-Time Algorithm for Adaptive Beamforming Using Cyclic Signals  
*S-J. Yu, J-H. Lee\*, National Taiwan University*
- 2:20 Nonlinear Spatial Separation of Multiple Sources In Adaptive Linear Arrays  
*P. V. Gorev, The Joint Laboratory of NPP "Polyot" & Radiophysical Research Institute*
- 2:40 An Adaptive Antenna Array for Broad-Band Signals Using the Constrained Kalman Filtering  
*Yuan-Hwang Chen\*, Ching-Tai Chiang, National Sun Yat-Sen University*
- 3:00 BREAK
- 3:20 A New Technique for Phase Only Nulling with Equispaced Arrays  
*Staffan Lundgren\*, John Sanford, Chalmers University of Technology*
- 3:40 Adaptive Nulling Systems for a Narrow-Band Signal with a Look Direction Constraint  
*Dan Madurasinghe, Defence Science and Technology Organisation*
- 4:00 Multi-Target Angle Tracking Via Antenna Array  
*Yuan-Hwang Chen\*, Yan-Tzong Lian, Chao-Hung Chen, National Sun Yat-Sen University*





**Monday PM AP Session 11**

**Salon 4**

**Special Session**

**Computer-Aided Engineering Education**

*R. E. Collin and Z. A. Fazeric*

- 1:20 Quest for Understanding of Natural Sciences  
*Zvonko Fazeric, Hewlett-Packard Laboratories*

- 1:40 Visualization of Retardation Effects  
*H. Haertel, IPN - Institute for Science Education, Kiel, E. Martin, R. Chicon, University of Murcia, Spain*

- 2:00 Visualizing Chaos - Understanding Electrical Signal Concepts  
*A. M. Close\*, H. M. Conner, Y. Rzhanov, Heriot-Watt University, Riccarton, Edinburgh*

- 2:20 The Colos Project: Applications in the Domain of Electrical Engineering  
*D. Muller\*, L. Mariaux, A. Nicolas, Ecole Centrale de Lyon, France*

- 2:40 A C.A.E. Package for an Intuitive Approach to Magnetic Circuits  
*D. Muller\*, L. Nicolas, F. Buret, Ecole Centrale de Lyon, France*

- 3:00 BREAK

- 3:20 Transmission in Linear Systems. An elementary analysis of a physics phenomenon.  
*H. Hartel, IPN - Institute for Science Education, Kiel*

- 3:40 Towards aCAT/CAL Software Autoadapting to End-User Learning-Style  
*L. Mariaux\*, M. Filippi, H. Cadot, D. Muller, Ecole Centrale de Lyon*

- 4:00 Transmission Processes in Time Domain  
*H. Haertel, IPN - Institute for Science Education, Kiel, E. Martin, J. M. Zamarro, University of Murcia, Spain*

- 4:20 CoLoS USA — An Interdisciplinary Consortium for Conceptual Learning and Innovative Problem Solving  
*Magdy F. Iskander\*, J. Corey Catten, Antony Jones, Rex Jameson, Albert Balcells, University of Utah*





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**Monday PM AP Session 12** **Salon 5**

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**Cellular and Terrain-Dominated Propagation**

*I. Jouny and D. J. Cichon*

- 1:40 Computation-Time Efficient Determination of 3D Propagation Paths in Rural Area  
*T. C. Becker, D. J. Cichon\*, W. Wiesbeck, University of Karlsruhe*
- 2:00 Experimental Investigation of EM Wave Propagation in Urban Microcells Compared to Ray-Launching Simulations at 2 GHz  
*U. Kauschke\*, Z. Liu, DeTeMobil GmbH*
- 2:20 Determination of Time-Variant Radio Links in High-Speed Train Tunnels by Ray Optical Modeling  
*D. J. Cichon\*, T. C. Becker, W. Wiesbeck, University of Karlsruhe*
- 2:40 Microcellular Propagation Modeling Including Antenna Pattern and Polarization  
*M. Garcia Sanchez\*, Universidad de Vigo, L. de Haro Ariet, Universidad Politecnica de Madrid, A. Garcia Pino, Universidad de Vigo, M. Calvo Ramon, Universidad Politecnica de Madrid*



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**Monday PM AP Session 13** **Salon 5**

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**Indoor Propagation**

*C. L. Holloway and C. C. Constantinou*

- 3:20 Spatial Characterisation of Single Room Indoor Propagation at 5.8 GHz  
*A. Louzir\*, A. Aemamra, D. Harrison, C. Howson, Thomson Consumer Electronics R&D France*
- 3:40 Ray Optical Indoor Modeling in Multi-Floored Buildings: Simulations and Measurements  
*D. J. Cichon\*, T. Zwick, University of Karlsruhe, J. Lahteenmaki, Technical Research Centre of Finland*
- 4:00 Analysis of Composite Walls for Short Path Propagation Modeling  
*Christopher L. Holloway\*, Kenneth C. Allen Michael G. Lafin, U.S. Department of Commerce*
- 4:20 On The Wideband Nature of UTD-Based Propagation Models  
*C. C. Constantinou\*, M. I. Sheikh, The University of Birmingham*
- 4:40 Diffraction Modelling and Measurements  
*Fengzhen Wang, Kerry Cai, John Litva, Keli Wu, McMaster University*






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**Monday PM AP Session 14**      **Salon B**

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**Horn and Slot Antennas**

*A. Love and E. El-Sharawy*

- 1:20 Accurate Radiation Characteristics of Horn Antennas - A Moment Method Model

*Arun K. Bhattacharyya, Hughes Space and Comm. Co.*

- 1:40 A Corrugated Soft Sector Horn with Different Beam Properties in the Two Principal Planes

*J. Salomonsson\*, Chalmers University of Technology, J. Hirokawa, Tokyo Institute of Technology, P-S. Kildal, Chalmers University of Technology*

- 2:00 ITD Approach for Predicting Near Field Radiation by a Circular Horn

*F. Capolino, S. Maci\*, F. Mioc, Univ. of Florence, R. Tiberio, Univ. of Siena*

- 2:20 Radiation from Axisymmetric Waveguide Fed Horns

*G. C. Chinn\*, D. J. Hoppe, L. E. Epp, Jet Propulsion Laboratory*

- 2:40 The Radiation Characteristics of a Ferrite-Tuned Cavity-Backed Slot Antenna

*D.M. Kokotoff, E-B. El-Sharawy\*, C.R. Birtcher, Arizona State University*

- 3:00 BREAK

- 3:20 Radiation by an Axial Slot on a Dielectric-Coated Concentric Conducting Circular Cylinder Loading a Semicircular Gap in a Ground Plane

*Hassan A. Ragheb, Umar M. Johar\*, King Fahd University of Petroleum and Minerals*

- 3:40 Planar Shunt Slot Array with L-Shaped Series/Series Coupling Slot

*Pyong K. Park, Hughes Missile Systems*

- 4:00 Wideband Ridge Waveguide Radiating Element for Phased Array Antennas

*A. K. Agrawal\*, M. S. Perry, N. R. Landry, Martin Marietta Corporation*

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**Monday PM AP Session 15**      **Salon C**

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**Microstrip Antenna Arrays**

*T. A. Metzler and J. Huang*

- 1:20 Stub Loaded Microstrip Reflectarrays

*T. A. Metzler, Ball Telecommunication Products Division*

- 1:40 Analysis and Design of Millimeter Wave Microstrip Reflectarrays

*S. D. Targonski\*, D. M. Pozar, University of Massachusetts, H. D. Syrigos, Alpha Industries, Inc.*



- 2:00 Bandwidth Study of Microstrip Reflectarray and a Novel Phased Reflectarray Concept  
*John Huang, Jet Propulsion Laboratory*
- 2:20 A Microstrip Array Fed by a Non-Homogeneous Stripline Feeding Network  
*Naftali I. Herscovici\*, Spears, Associates, Inc. Nirod K. Das, Weber Research Institute, Josh Klugman, Polyflon Company*
- 2:40 A Numerical Model for Multilayered Microstrip Phased Array Antennas  
*Arun K. Bhattacharyya, Hughes Space and Communications*
- 3:00 BREAK
- 3:20 Design of a Multi-Layer Transmit/Receive Dual-Frequency Microstrip Patch Antenna Array  
*Greg Lee, Hewlett Packard Laboratories, Masoud Mostafavi, San Jose State University*
- 3:40 A Dual-Band Stacked Microstrip Antenna Array for Mobile Satellite Applications  
*Siva Chebolu, Supriyo Dey\*, Raj Mittra, University of Illinois, Mike Itoh, Matsushita Electric Works, Ltd.*
- 4:00 Scan Comparison of Several Techniques for Generating Circular Polarization in Probe-Fed Microstrip Patch Phased Arrays  
*R. B. Waterhouse, Royal Melbourne Institute of Technology*
- 4:20 Reciprocity Analysis of an Infinite Array of Offset Dual-Patch Antennas  
*T.M. Au, K.F. Tong, K.M. Luk\*, City University of Hong Kong*
- 4:40 Printed Antenna Arrays: A Perturbation Analysis  
*A. K. Skivervik\*, J. R. Mosig, Ecole Polytechnique Federale de Lausanne*



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**Monday PM AP Session 16 Salon D**

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**Time Domain Numerical Methods (FDTD) II**  
*R. Luebbers and K. Lee*

- 1:20 IBC Simulaton in the FDTD/FVTD Hybrid for Smooth Surfaces  
*Kane S. Yee, Jei S. Chen, Lockheed Palo Alto Research Laboratory*
- 1:40 Artificial Tapered Damping Near the Outer Computation Boundary in FDTD and FDTD/FVTD Hybrid  
*Jei S. Chen, Kane S. Yee, Lockheed Palo Alto Research Laboratory*
- 2:00 Numerical Experiments on PEC Boundary Condition and Late Time Growth Involving the FDTD/FDTD and FDTD/FVTD Hybrid  
*Kane S. Yee, Jei S. Chen, Albert H. Chang, Lockheed Palo Alto Research Laboratory*





- 2:20 A Frequency Dependent FDTD Surface Impedance for Scattering from Coated PEC Targets  
*C. W. Penney, R. J. Luebbers, J. W. Schuster, The Pennsylvania State University*
- 2:40 An Efficient Higher Order Numerical Convolution for Modelling Nth-Order Lorentz Dispersion  
*Riaz Siushansian\*, Joe LoVetri, The University of Western Ontario*
- 3:00 BREAK
- 3:20 Extremely Low Frequency Numerical Modeling in Lossy Media Using the FDTD  
*Wai L. Ko, Raj Mittra, University of Illinois*
- 3:40 FDTD Analysis of Apache Helicopter HF Antennas  
*William V. Andrew, Constantine A. Balanis, Arizona State University*
- 4:00 A Comparison of FD-TD and the Method of Moments to Model Electrically Small Antennas  
*A. D. Monk\*, M. Rayner, A. D. Oliver, University of London, UK*
- 4:20 FDTD Analysis of a Strip Dipole for a Circularly Polarized Printed Array Fed by stripline  
*S-i. Matsuzawa\*, M. Naito, J. Ogawa, K. Ito, Chiba University*
- 4:40 Electromagnetic Wave Propagation in Waveguides with Magnetized Plasma  
*Marcelo Eduardo Vieria Segatto, Federal University of Espírito Santo, Rubem Goncalves Farias, Federal University of Para, Attilio Jose Giarola, State University of Campinas*
- 5:00 On the Invariance of the MEI to the Field of Excitation  
*K. M. Luk, Edward K. N. Yung, K. W. Leung, City University of Hong Kong*

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**Monday PM AP Session 17 Salon E**

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**Space Antennas**

*B. A. Bourgeois and E. Lier*

- 1:20 Space Station GPS Antennas Multipath Analysis  
*S.U. Hwu, B.P. Lu, Lockheed, R.J. Panneton, B.A. Bourgeois\*, NASA/LBJ*
- 1:40 X-band SAR Active Antenna Design for Small Satellite Applications  
*G. Codispoti, M. Lisi, V. Santachiara, Alenia Spazio S.p.A*
- 2:00 Sidelobe Reduction with Array Fed Spherical Lenses  
*John Sanford\*, Zvonomir Sipus, Chalmers University*





- 2:20 EHF Multiple Beam Dielectric Lens Antenna  
*Q.M. Tang, Spar Aerospace Ltd., K.K. Chan\*, Chan Tech, Inc., G.A. Morin, Defence Research Estb., S.K. Rao, Spar Aerospace Ltd.*
- 2:40 Impact of Optical Baffle on Antenna Pattern  
*T. K. Wu\*, Jet Propulsion Laboratory*

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**Monday PM AP Session 18 Salon E**

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**Circular and Ring Microstrip Antennas**

*N. G. Alexopoulos and T. Fujimoto*

- 3:20 Electromagnetically Coupled Microstrip Ring-type Antennas of Arbitrary Shape  
*Ming-Ju Tsai\*, Nicolaos G. Alexopoulos, UCLA*
- 3:40 Radiation Properties of Ring-Microstrip Antenna With Slit as Polarization Controller  
*E.T. Rahardjo\*, S. Tsuda, A. Matsui, M. Haneishi, Saitama University*
- 4:00 Bandwidth Widening in an Annular Ring Microstrip Antenna with Superstrate  
*Cigdem. S. Gurel\*, Erdem Yazgan, Hacettepe University*
- 4:20 Surface Admittance of Circular Microstrip Antenna  
*T. Fujimoto\*, M. Taguchi, K. Tanaka, Nagasaki University*
- 4:40 A Broadband Low Profile Microstrip Circular Patch Antenna  
*Jacob George\*, P. Mohanan, K. G. Nair, Cochin University of Science and Technology*




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**Monday PM AP Session 19 Trimaran/Brigantine**

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**MM Waves and Dielectric Resonator Antennas**

*K. Webb and G. Rebeiz*

- 1:20 Investigation of Hybrid Modes in Broadside-Coupled Coplanar Waveguide for MW & MMW Integrated Circuits  
*Cam Nguyen\*, Texas A&M University*
- 1:40 A Double Folded-Slot Antenna at 94 GHz  
*Sanjay Raman\*, Thomas M. Weller, Linda Katehi, Gabriel Rebeiz, University of Michigan*
- 2:00 Vlasov Feeds with Corrugated Flares for Pattern Enhancement  
*Phil J. Sealy, R. J. Vernon\*, University of Wisconsin, J. A. Lorbeck, Qualcomm, Inc.*





- 2:20 Application of the Scattering Optimization Method for the Design of Circular Waveguide Mode Converters  
*Tanveer Ul Haq\*, Kevin J. Webb, Purdue University, Neal C. Gallagher, University of Delaware*
- 2:40 94 GHz slot-Ring Antennas for Monopulse Applications  
*Sanjay Raman\*, Gabriel Rebeiz, University of Michigan*
- 3:00 BREAK
- 3:20 Analysis of Symmetrical and Asymmetrical Fin-line Structures Using the Integral Equation Technique  
*A. Boubertakh, M. Drissi, J. Citerne, INSA/LCST, CNRS, France*
- 3:40 Hemispherical Dielectric Resonator Antenna with a Concentric Conductor  
*K. M. Luk\*, K. W. Leung, Edward K. N. Yung, City University of Hong Kong*
- 4:00 Magnetic Quadrupole Mode Dielectric Resonator Antenna  
*R. K. Mongia\*, A. Ittipiboon, M. Cuhaci, Communications Research Centre*
- 4:20 A New Broadband Circularly Polarized Dielectric Resonator Antenna  
*M.B. Oliver\*, Y.M.M. Antar, Royal Military College of Canada, R.K. Mongia, Communications Research Centre*
- 4:40 Resonant Second Harmonics Generation of the Submillimeter Surface Wave in the Semiconductor Superlattice Bounded by a Metal  
*K.N. Ostrikov\*, N.A. Azarenkov, I.B. Denisenko, Kharkov State University*



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**Monday PM AP Session 20 Yawl**

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**Random Media and Microstrip Components**  
*Y. Kuga and S. A. Long*

- 1:20 A Technique for Measuring the Effective Propagation Constant of Dense Random Media  
*Adib Nashashibi\*, Kamal Sarabandi, University of Michigan*
- 1:40 Monte Carlo Simulations of Backscattering Enhancement of Electromagnetic Waves from Two-Dimensional Perfectly Conducting Random Rough Surfaces and Comparison with Experimental Data  
*K. Pak\*, University of Washington, J. Johnson, MIT, L. Tsang, C. Chan, Y. Kuga, University of Washington*
- 2:00 Strong Fluctuation Theory for a Mean EM Field in a Statistically Inhomogeneous Medium: Case of Cylindrically-Layered Medium  
*Nickolay P. Zhuck\*, Klaus Schunemann, Technische Universität Hamburg-Harburg*





- 2:20 A Circularly Polarized HTS Microstrip Antenna Array  
*Jarrett D Morrow\*, Jeffery T. Williams, Matthew F. Davis, Darian L. Licon, Stuart A. Long, John C. Wolfe, University of Houston*
- 2:40 HTSC Microstrip Transmission Line and its Discontinuities  
*Tiejun Yu\*, Xuexia Zhang, Peiheng Wu, Tsinghua University*

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<i><b>Monday PM</b></i>	<i><b>AP</b></i>	<i><b>Session 21</b></i>	<i><b>Yawl</b></i>
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### **TLM and Method of Lines**

*W. Hoeffer and R. K. Mongia*

- 3:20 TD-TLM Analysis of a Resonant Structure Using Modal Theory  
*Zhizh Zhang Chen, Technical University of Nova Scotia*
- 3:40 Modeling of Inhomogeneous Dielectric Layers Using TLM Cuboid Condensed Node  
*Qi Zhang\*, W. Hoefer, University of Victoria*
- 4:00 Dispersion Analysis of State-Variable TLM Symmetrical Condensed Node  
*L. de Menezes\*, W. Hoefer, University of Victoria*
- 4:20 TLM Analysis of Rectangular Dielectric Resonator Antennas  
*A. Dhouib\*, M. G. Stubbs, R. K. Mongia, Communication Research Centre, M. Lecours, Laval University*
- 4:40 Analysis of Open Planar Structures Using the Method of Lines with Periodic Boundary Conditions  
*H.Q. Zhu, Y. Long, D.G. Fang\*, Nanjing University of Science and Technology*




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### ***Monday PM Joint/URSI-B Session 4 Schooner/Sloop***

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#### **Special Session**

#### **Higher Order Modeling in Computational Electromagnetics**

*D. R. Wilton, A. F. Peterson and R. D. Graglia*

- 1:20 Some Results on H(curl) Finite Elements  
*Jean-Claude Nedelec, CMAP Ecole Polytechnique*
- 1:40 Edge Elements, Nodal Elements and the Finite-element Modeling of Electromagnetic Fields  
*Gerrit Mur, Delft University of Technology*





- 2:00 Why Complete Continuity Constraints in Vector Basis Functions are Undesirable  
*A. F. Peterson, Georgia Institute of Technology, Donald R. Wilton\*, University of Houston*
- 2:20 High-Order Finite Element Methods in Electromagnetic Field Computation  
*Zoltan Cendes, Carnegie Mellon University*
- 2:40 Application of Higher Order Vector Elements to the Coupled Finite Element-Combined Field Integral Equation (FE/CFIE) Technique  
*Vahraz Jamnejad\*, Tom Cwik, Cinzia Zuffada, Jet Propulsion Laboratory*
- 3:00 BREAK
- 3:20 Higher Order Edge Finite Elements in Electromagnetic Field Modelling  
*I. Bardi\*, O. Biro, R. Dyczij-Edlinger, K. Preis and K. R. Richter, IGTE, Technical University of Graz*
- 3:40 Higher Order Divergence-Conforming and Curl-Conforming Bases on Curved Elements  
*R. D. Graglia\*, Politecnico di Torino, A. F. Peterson, Georgia Institute of Technology, D. R. Wilton, University of Houston*
- 4:00 Higher-Order Discretization of Integral Equations with Singular Kernels  
*Stephen Wandzura, Hughes Research Lab.*
- 4:20 Local Interpolatory Cardinal Spline (LICS) Method in Solving Linear and Nonlinear Schrodinger Equation  
*J. J. Chen, National Yunlin Polytechnic Institute, J. Zha, Valmet Automation Inc. M. Du, J. C. Goswami, A. K. Chan, C. K. Chui, Texas A&M University*
- 4:40 A Fock-Function Representation of the Fields Induced on an Impedance or Coated Cylindrical Surface by a Z-Directed Point Source  
*Paul E. Hussar, IIT Research Institute*
- 5:00 Residue-Series Computation of Lit-Region Fields Via a Novel Function  
*Paul E. Hussar, IIT Research Institute*



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## Monday PM    URSI-B Session 4

*Catamaran*

### Chiral Media

*D. L. Jaggard and I. V. Lindell*

- 1:20 Some Possible Effective-Medium Descriptions for Bi-anisotropic Inclusions with Non-random Orientation  
*Ari Sihvola, Juha Juntunen, Helsinki University of Technology*
- 1:40 Source Decomposition Theory for Uniaxial Media  
*I. V. Lindell, Helsinki University of Technology*





- 2:00 Analysis of Wave Propagation in a Chiral-Filled Rectangular Waveguide  
*Abhay R. Samant, University of Illinois, Keith W. Whites\*, University of Kentucky*
- 2:20 Scattering From a Chiral-Coated Conducting Cylinder of Arbitrary Cross Section  
*M. Al-Kanhal\*, E. Arvas, Syracuse University*
- 2:40 Measured and Computed EM Scattering Comparison for Chiral-Material Slabs  
*Keith W. Whites, University of Kentucky*
- 3:00 BREAK
- 3:20 Reflection and Transmission Characteristics of Chiral Panels  
*D. E. Jussaume\*, Rockwell International, S. Singh, The University of Tulsa*
- 3:40 TE - TM Decoupling in Rectangular Coordinates for Guided Propagation in Biaxotropic Media  
*P. L. E. Uslenghi, University of Illinois at Chicago*
- 4:00 On The Brillouin Diagrams for Periodic Chiral Media  
*D. L. Jaggard, K. M. Flood, University of Pennsylvania*
- 4:20 Electromagnetic Fields in Open Chirostrip Structures Excited by Printed Dipoles  
*J. C. da S. Lacava, Instituto Tecnologico de Aeronautica, Feliciano Lumini, EMBRAER*
- 4:40 Chiral Absorbers: Effects of Chirality or of Inclusion Shape?  
*S. A. Tretyakov, A. A. Sochava, St. Petersburg State Technical University, C. R. Simovski, St. Petersburg Institute of Fine Mechanics and Optics*
- 5:00 Electromagnetic Scattering By Bi-Uniaxial Stratified Media  
*S. Shulga\*, O. Charkina, Kharkov State University*



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## **Monday PM    URSI-A Session 5**

## **Salon A**

### **Antennas and EM Field Metrology**

*B. Cown and Z. Hussein*

- 1:20 Microwave Imaging and Holographic Diagnostic to Antennas in Cylindrical Near-Field Measurement  
*Ziad A. Hussein, Jet Propulsion Laboratory*
- 1:40 Hybrid Near-Field Measurement/Analysis Technique for Predicting Installed Antenna Performance and Coupling  
*B. J. Cown, Satimo, Inc., J. Ch. Bolomey, D. Picard, SUPELEC, J. P. Estrada, Georgia Tech.*





- 2:00 A New Method for Phase Antenna Pattern Reconstruction from Amplitude Measurements Only  
*Pavel Yu. Kostenko\*, Alexandr A. Adamenko, Yuri V. Bulka, Kharkov Aviation Institute*
- 2:20 EMF Near Passive Secondary Radiators  
*Hubert Trzaska, Technical University of Wroclaw*
- 2:40 A Method to Evaluate the Effectiveness Outside a Building of Electromagnetic Noise Countermeasures  
*Yuji Maeda\*, Yoshiyuki Komatsu, Kazuo Murakawa, Hiroshi Yamane, NTT Telecommunication Networks Laboratories*
- 3:00 BREAK
- 3:20 On Modeling the Quantum Microscale Electromagnetic Probe  
*Leon A. Steinert, Physical Synergetics Institute*
- 3:40 Operative Testing of Antenna-Surface Thermic Distortions  
*V. Khaikin, The Special Astrophysical Observatory*
- 4:00 A Study of Reflecting Surface of Single RATAN-600 Panels  
*V. Khaikin, The Special Astrophysical Observatory*



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**Monday PM    URSI-B    Session 6                      Salon F**

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**Antennas II**

*S. R. Rengarajan and S. S. Stuchly*

- 1:20 The Dielectric Wedge Antenna Fed by a Slab Waveguide Using Local Mode Theory and Equivalent Current Distributions: TE-Case  
*Felix Schwering, U. S. Army CECOM, Gerald M. Whitman\*, Wan-Yu Chen, New Jersey Institute of Technology*
- 1:40 Modeling Antenna Performance with an Efficient Hybrid Finite Element - Integral Equation - Waveguide Mode Matching Technique  
*Cinzia Zuffada\*, Tom Cwik, Vahraz Jamnejad, Jet Propulsion Laboratory*
- 2:00 Mutual Coupling Between Waveguide-Fed Transverse Slots Radiating Between Baffles  
*Sembiam R. Rengarajan, California State University, Northridge*
- 2:20 Millimeter-Wave Dielectric Resonator Antenna Array  
*M. G. Keller\*, M. B. Oliver, Y. M. M. Antar, Royal Military College of Canada, D. Roscoe, R. K. Mongia, A. Ittipiboon, Communications Research Centre*
- 2:40 Analysis of Equiangular Spiral Antennas  
*Stuart M. Wentworth\*, Sadasiva M. Rao, Auburn University*





3:00 BREAK

- 3:20 Equivalent Circuit of Long Dipole Antenna  
*M. Hamid, University of South Alabama*
- 3:40 Impedance Bandwidth of Bent Wire Antennas  
*M. Ali, S. S. Stuchly\*, K Caputa, University of Victoria*
- 4:00 Active Antenna Phase Control using Subharmonic Locking  
*P. S. Hall, A. Zarroug, M. Cryan, The University of Birmingham*
- 4:20 Below-Resonant Length Slot Radiators For Travelling Wave Array Antennas  
*Klaus Solbach, Daimler-Benz Aerospace*
- 4:40 Study of VLF Antennas Immersed into Seawater: Moment Method Computations and Development of an Equivalent Physical Model  
*ahia Benhabiles\*, Michel Pellet, DCN/CTSN/TIRN, Albert Papiernik, Christian Pichot, Universite de Nice-Sophia Antipolis, Philippe Lacour, TEUCHOS PACA*
- 5:00 Fast Data Weighting Algorithms for Equidistant Array Digital Signal Processing  
*I. P. Anukhin\*, V. V. Lukin, Kharkov Aviation Institute*

