



Tuesday AM AP Session 22 Catamaran



Electromagnetic Theory I

P.-S. Kildal and Y. L. Chow

- 8:20 A Rigorous Analysis of the Generalized Rayleigh-Gans Approximation
James M. Stiles, Kamal Sarabandi, University of Michigan
 - 8:40 On Solving the Scattering of a Plane Wave by a System of Two Thin Spheroids Closely Packed by Using the Quasi-addition Theorem
T. Do-Nhat, R.H. MacPhie, University of Waterloo*
 - 9:00 On the Existence of the Near Zone Inverse Doppler Effect
Yehuda Ben-Shimol, Dan Censor, Ben-Gurion University*
 - 9:20 Two-DIMensional ANalysis of Bandwidth of Open Hard Surface
Zvonimir Sipus, University of Zagreb, Per-Simon Kildal, Johan Salomonsson, Chalmers University of Technology*
 - 9:40 Simulated Images for Multilayer Media, Complex Images without Prony's Method
Y. L. Chow, A. Torabian-Esfahani, N. Hojjat, University of Waterloo
- 10:00 BREAK





- 10:20 A Simple 'Derivation' of Maxwell's Equations Relying on the new Extended Helmholtz Theorem
Robert D. Nevels, Texas A&M University
- 10:40 Dyadic Green's Functions in the Prolate Spheroidal Coordinate System
Attilio Jose Giarola, State University of Campinas
- 11:00 EM Wave Excitation and Propagation in a Generally Anisotropic Homogeneous Medium: A Coordinate-Free Approach
Nickolay P. Zhuck, Abbas S. Omar, Technische Universität Hamburg-Harburg*
- 11:20 Dispersion of Magnetohydrodynamic Waves on the Discontinuities
A. A. Aleksandrova, N. A. Khiznjaak, Test-Radio LTD
- 11:40 The Impedance Vibrator in an Anisotropic Plasma
N. A. Khizhniak, E. A. Yatsenko, N. M. Yatsenko, Kharkov State University, Ukraine*

Tuesday AM AP Session 23 Salon 1/2

Time Domain Methods (Various)

C. H. Chan and B. J. Kooij



- 8:20 FD-TLM Modeling of Picosecond Electromagnetic Signal Propagation in High-Frequency Mosfet Circuits
Robert H. Voelker, Kendall B. Eggers, Christopher G. Sentelle, University of Nebraska-Lincoln*
- 8:40 A Novel Development in the Analysis of Electromagnetic Scattering from Complex Structures
E. J. Ridgway Watt, A. J. Page, D. Woods, British Aerospace, K. Morgan, O. Hassan, University College, Swansea*
- 9:00 An Efficient Initialization Method for FDTD Computation of Plane Wave Scattering
M. Jaureguy, P. Borderies, CERT/ONERA*
- 9:20 A Single-Matrix Whitney Element Time-Domain Method for Two-Dimensional Problems
H. Sangani, C.H. Chan, University of Washington*
- 9:40 TD-UTD Slope Diffraction for a Perfectly Conducting Curved Wedge
P.R. Rousseau, P.H. Pathak, The Ohio State University*
- 10:00 BREAK



- 10:20 Transient Electromagnetic Field Emitted by a Pulsed Current Travelling Along Finite, Thin Straight Wires Above a Plane Non-Perfectly Conducting Earth

B.J. Kooij, Delft University of Technology

- 10:40 A Time Domain Analysis of Slot Antennas

R. Moini, G. Z. Rafi, A. Tavakoli, Amirkabir University of Technology, Iran*

- 11:00 Pulse Characteristic of Smooth Objects in Bystatic Case

Oleg I. Sukharevskij, Vitaly A. Vasilets, Stanislav A. Gorelyshev, Academy of Science of Applied Radioelectronics, Ukraine

Tuesday AM AP Session 24

Salon 5

Reflector Antennas I

A. Roederer and S. Ghosh

- 8:20 Characterisation of Near-Field Focusing with Application to the Arecibo Tri-reflector System

Per-Simon Kildal, Chalmers University of Technology, Michael M. Davis, National Astronomy and Ionosphere Center*



- 8:40 Elliptical Beam Closed-Form Dual-Reflector Antenna Efficiently Illuminated by a Feed with an Axially-Symmetric Radiation Pattern

Kenneth W. Brown, Hughes Aircraft Company, Aluizio Prata, Jr., University of Southern California*



- 9:00 Noise Reduction Shield on a Double-Offset Reflector Antenna and its Effect on Antenna Sidelobe Structure

S. Srikanth, National Radio Astronomy Observatory

- 9:20 Interpolation of Reflector Surfaces Using Deformed Plate Theory

Alan R. Keith, Hughes Aircraft Company, Aluizio Prata, Jr., University of Southern California*

- 9:40 Equivalence of Physical Optics and Aperture Field Integration Method in the Full Pattern Analysis -Effects of Integration Surface-

M. Oodo, M. Ando, Tokyo Institute of Technology*

- 10:00 BREAK

- 10:20 High Performance Reflector Hat Antenna With Very Low Sidelobes for Radio-Link Applications

J. Hansen, Chalmers University of Technology, A.A. Kishk, University of Mississippi, P-S. Kildal, O. Dahlsjö, Ericsson Radar Electronics*

- 10:40 Spherical Wave Strut Blockage in High Gain Reflector Antennas

S. Maci, Univ. of Florence, R. Mizzoni, Alenia Spazio, B. Romani, Univ. of Florence, R. Tiberio, A. Toccafondi, Univ. of Siena*





- 11:00 Milstar Reflector Antennas With Electronic Tracking Feeds
J.F. Pedersen, G.A. Schay, G.S. Avallone, P.W. Hannan, Hazeltine Co.*
- 11:20 A Prospective Theoretical Study of Double Offset with Spherical Main Reflector Application to Ku Band Ground Stations
Luis Claudio Palma Pereira, CPqD/Telebras
- 11:40 Radiation Analysis of Reflector Antennas by Gaussian Beam Method
Y. Z. Ruan, H. J. Shou, J. Lin, University of Electronic Science and Technology of China*
- 12:00 Modelling a Resistive-Reflector Antenna by the Complex Source-Dual Series Approach: The 2-D Case of H-Polarization
A. Altintas, Bilkent University, Ankara, Turkey, A. I. Nosich, Inst. Radiophysics and Electronics, V. B. Yurchenko, Kharkov State Polytechnical University, Ukraine*

Tuesday AM AP Session 25 Salon B

Antenna Arrays I

R. Telikepalli and H. M. Aumann



- 8:20 Phased Array Calibrations Using Measured Element Patterns
H. M. Aumann, F. G. Willwerth, MIT Lincoln Laboratory*
- 8:40 Analysis of Small Arrays Above Ground Planes of Finite Extent
A. J. Parfitt, The University of Adelaide*
- 9:00 Using a Small Array to Optimize Dipole Match in the Presence of Mutual Coupling
Leendert J. du Toit, Reutech Radar Systems
- 9:20 A Comparison between Stacked Slotted and Solid Square Patches in Phased Array Environment for Wide Angle Coverage
Radha Telikepalli, CAL Corporation
- 9:40 Array Element Pattern Shaping by a Parasitic Element
Y. Kuwahara, Y. Kadokawa, K. Matsumoto, NEC Corporation
- 10:00 BREAK
- 10:20 Synthesis of Multiple Beam Linear Antenna Arrays Using Genetic Algorithms
D. Marcano, F. Duran, O. Chang, Universidad Simon Bolivar*
- 10:40 On Null Steering in Rectangular Planar Array using External Elements
S. H. Zainud-Deen, Riyadh College of Telecommunications



- 11:00 A Circuit Model for Antenna Array Mutual Coupling Effects
K-C. Lee, T-H. Chu, National Taiwan University*
- 11:20 Frequency Scanning Printed Array Antenna
Aleksandar Nasic, Sasa Dragas, Institute of Microwave Techniques and Electronics*

Tuesday AM AP Session 26 Salon C

Microstrip Patch Antenna Analysis

Y. Chen and C. S. Lee

- 8:20 Dispersion Characteristics of Shielded Coupled Microstrip Lines on Ferrimagnetic Substrate
Kunquan Sun, Jackson State University, Yinchao Chen, University of Illinois at Urbana Champaign
- 8:40 Asymptotic Method for Evaluating Matrix Elements in Microstrip Antenna Analysis
Choon Sae Lee, Tung-Hung Hsieh, Southern Methodist University, Vahagn Nalbandian, US Army CECOM*
- 9:00 Full Wave Analysis of Microstrip Patch Antenna by a Modified Least-Squares Boundary Residuals Method
M. Ghomi, S. Pujol, H. Baudrand, ENSEEIHT*
- 9:20 Rigorous Analysis of Rectangular Microstrip Antennas with Parasitic Patches
Shyh-Yeong Ke, Kin-Lu Wong, National Sun Yat-Sen University
- 9:40 Generalized Spectral Domain Analysis of an Infinite Array of Dielectric Supported Metal Strip Antennas
K.N. Yeo, A.J. Parfitt, University of Adelaide*



Tuesday AM AP Session 27 Salon D

Microstrip Patch Antennas II

R. H. Johnston and K. Tsukamoto

- 8:20 A Compact Two Way Diversity Microstrip Upatch Antenna
M. G. Douglas, University of Victoria, R. H. Johnston, University of Calgary/TR Labs.*
- 8:40 A Compact Microstrip Antenna for CP
S. Dey, S. Chebolu, R. Mittra, University of Illinois, Ikmo Park, Goldstar CRL, T. Kobayashi, M. Itoh, Matsushita Electric Works*





- 9:00 Dual Polarized Flat Array Antenna
K. Tsukamoto, T. Saitou, Matsushita Electric Works Ltd., H. Arai, Yokohama National University
- 9:20 Dual-Polarized Slot Antennas with Stacked and Coplanar Feed Systems
K. Nakayama, H. Nakano, Hosei University
- 9:40 Analysis of Cross-Shaped Dual-Polarized Microstrip Patch Antennas
Ahad Tavakoli, Nader Damavandi, Rouzbeh Moini Mazandarani, Amirkabir University of Technology*
- 10:00 BREAK
- 10:20 Omnidirectional Circularly-Polarized Conformal Microstrip Array for Telemetry Applications
Doris I. Wu, Boulder Microwave Technologies
- 10:40 Conformal Low-Profile Multifunction Antennas
J.J.H. Wang, V.K. Tripp, J.K. Tillery, Wang-Tripp Corporation*
- 11:00 Wide Band Confocal Annular Elliptic Microstrip Antenna
Fayez A. Alhargan, KACST, Sunil R. Judah, Hull University*
- 11:20 Radiation Characteristics of Helical Microstrip Antennas
Abdelfattah A. Elsohly, Egyptian Armed Forces, Atef Z. Elsherbeni, University of Mississippi, Atef Ghoneim, Military Technical College, Cairo*
- 11:40 A Novel Broadband Microstrip Antenna
Zhu Bocheng, Institute of Command and Technology, Beijing, Liu Zhangfa, Li Shizhi, Beijing Institute of Technology



Tuesday AM AP Session 28 Salon E

Computational Issues and Large Systems

E. K. Miller and N. K. Uzunoglu

- 8:20 A Computational Study of the Effect of Matrix Size and Type, Condition Number, Coefficient Accuracy and Computation Precision on Matrix-Solution Accuracy
E.K. Miller, Ohio University
- 8:40 Scalability of Parallel Processing Method of Moments Technique in Treating Electrically Large Electromagnetic Structures
D.I. Kaklamani, A. Marsh, N.K. Uzunoglu, Univesity of Athens*
- 9:00 Electromagnetic Calculations for Large Bodies of Translations
G. Davis, Lockheed





- 9:20 Detection of the Interior Resonance Errors of Surface Integral Boundary Conditions for Scattering Problems
Yinshang Liu, Kevin J. Webb, Purdue University*
- 9:40 Stabilizing the Time-Marching EFIE Algorithm
S. Kashyap, Defence Research Establishment Ottawa, M. Burton, InfoMagnetics Tech. Corp., A Louie, S. & S. Software*

10:00 BREAK

- 10:20 Comparative Study of Acceleration Techniques for Integrals and Series in Electromagnetic Problems
N. Kinayman, M.I. Aksun, Bilkent University*
- 10:40 Analysis of Narrow Wall Slots in a Rectangular Waveguide Excited by Tilted Wires using the Virtual Cylinder Method
Jiro Hirokawa, Tokyo Institute of Technology, Per-Simon Kildal, Chalmers University of Technology*
- 11:00 Rectangular Waveguide Green's Function Involving Complex Images
D.G. Fang, F. Ling, Y. Long, Nanjing University of Science and Technology*

Tuesday AM Joint/URSI-B Session 5 Salon C



Microstrip Antenna Analysis Methods

R. G. Rojas and D. De Zutter

- 10:20 Analysis and Treatment of Edge Effects on the Radiation Pattern of a Microstrip Patch Antenna
Michael F. Otero, Roberto G. Rojas, The Ohio State University*
- 10:40 Extension of the Compression Approach to Include Device Metalizations in Electromagnetic Simulations
S. Ooms, D. De Zutter, University of Gent*
- 11:00 On The Space Domain Green's Function for Microstrip Geometries
S. Marchetti, J. M. Laheurte, Universite Nice-Sophia Antipolis*
- 11:20 A Full-Wave Analysis of Active Uniplanar Structures
E. Vourch, M. Drissi, J. Citerne, INSA/LCST*
- 11:40 A Moment-Method Analysis Technique for Microstrip Antennas
S. Adeniyi Adekola, A. Ike Mowete, University of Lagos*



Tuesday AM Joint/URSI-B Session 6 Yawl

Special Session

Scattering by Wedges I

E. Marx and P. L. E. Uslenghi

- 8:20 Electromagnetic Scattering by Wedges
Egon Marx, National Institute of Standards and Technology
- 8:40 A Formulation of Self-Similar Dielectric Wedge Diffraction
G. L. Wojcik, Weidlinger Associates
- 9:00 Scattering by a Dielectric Wedge: Oblique Incidence
Egon Marx, National Institute of Standards and Technology
- 9:20 Scattering by a Composite Wedge of Metal and Dielectric
Huen-Tae Ha, Jung-Woong Ra, Korea Advanced Institute of Science and Technology*
- 9:40 Geometrical Optics Exact and Approximate Solutions for Metal-Dielectric Wedge Structures
P. L. E. Uslenghi, University of Illinois at Chicago, N. J. Damaskos, Damaskos, Inc.*
- 10:00 BREAK
- 10:20 Diffraction by a Second Order Impedance Wedge
Thomas B. A. Senior, The University of Michigan
- 10:40 Oblique-Incidence Scattering from Impedance and Coated Wedges by the Method of Virtual Rays
N. G. Alexopoulos, University of California at Los Angeles, D. R. Jackson, University of Houston, P. Ya. Ufimtsev, J. A. Castaneda, Phraxos Research and Development, Inc.*
- 11:00 Diffraction at an Edge of a Truncated, Grounded Dielectric Slab
L. Borselli, S. Maci, L. Rossi, University of Siena, R. Tiberio, University of Florence
- 11:20 Scattering of a Plane Wave by a Dielectric Wedge
D. Bogy, University of California, Berkeley, B. Budaev, Steklov Mathematical Institute
- 11:40 Eigenfunctions of Wedge-Shaped Regions
Bair Budaev, Steklov Mathematical Institute
- 12:00 Towards Applied Adaptation of the Malyuzhinets' Solution
A. V. Osipov, St. Petersburg State University



Tuesday AM URSI-B Session 7 Salon 3

Finite Element Methods

T. Cwik and T. P. Fontana

- 8:20 A Functional That Eliminates Spurious Solutions and the Finite Element Implementation

C. F. Bunting, Old Dominion University, W. A. Davis, Virginia Polytechnic Institute and State University*

- 8:40 Investigation of Numerical Dispersion in the Finite-Element Method Using Three-Dimensional Edge Elements

Gregory S. Warren, USAF Rome Laboratory, Waymond R. Scott, Jr. Georgia Institute of Technology*

- 9:00 Finite Element Analysis of Conformal Antennas on Doubly Curved Platforms

Tayfun Ozdemir, John L. Volakis, University of Michigan*

- 9:20 The Treatment of Edge Singularities in Waveguiding Problems Using a Finite Element Method Based on Edge Elements

Z. Pantic-Tanner, San Francisco State University, D. R. Tanner, Lockheed Martin, J. S. Savage, A. F. Peterson, Georgia Institute of Technology*



- 9:40 Finite Element Analysis of Cavity Backed Apertures in Three Dimensional Bodies

C. J. Reddy, M. D. Deshpande, C. R. Cockrell, F. B. Beck, NASA-Langley Research Center*



- 10:00 BREAK

- 10:20 Implementing Voltage and Current Gap Sources in Finite Elements

Xingchao Yuan, Zoltan Cendes, Ansoft Corporation*

- 10:40 A 3-D Vector Finite Element Analysis for Modeling Lossy Anisotropic Ferrite Devices

Thomas P. Fontana, Eric W. Lucas, Westinghouse Electric Corporation*

- 11:00 Edge-based Vector Finite Element Method and its Application to Aperture Coupling Between Rectangular Waveguides

J. Zhou, J. J. Song, Y. Kang, R. L. Kustom, Argonne National Laboratory, T. T. Wong, Illinois Institute of Technology*

- 11:20 An Infinite Element for the Finite Element Quasi-Static Analysis of Open Waveguiding Structures

Magdalena Salazar-Palma, Universidad Politecnica, Jose-Felix Hernandez-Gil, Telefonica Investigacion y Desarrollo*





- 11:40 First and Second Order Curved Non-Standard Finite Elements for the Dynamic Analysis of Waveguiding Structures with Curved Contours
Fernando Blanc-Castillo, Magdalena Salazar-Palma, Luis E. Garcia-Castillo, E.T.S.I. Telecomunicacion*

12:00 A Second Order Non-Standard Finite Element for the Dynamic Analysis of Generalized Waveguiding Structures
Fernando Blanc-Castillo, Magdalena Salazar-Palma, Luis E. Garcia-Castillo, E.T.S.I. Telecomunicacion. Universidad Politecnica*

Tuesday AM URSI Session 8 Salon 4

Special Session

Tribute to Professor Irene Peden

A. Ishimaru

- 8:20 Irene Peden: Her Professional and Human Impact
Akira Ishimaru, University of Washington

8:40 Reminiscences of Research in Antarctica: A Tribute to Professor Irene Peden
George E. Webber, HFS Inc.

9:00 Dr. Irene Peden and the NSF
Lawrence S. Goldberg, National Science Foundation

9:20 Engineering Education in the Nineties: Challenges and Opportunities
David C. Chang, Polytechnic University

9:40 Irene Peden: A Lady for all Seasons
Gary S. Brown, Virginia Polytechnic Institute and State University

10:00 BREAK

10:20 The First Course in Electromagnetics
Donald G. Dudley, University of Arizona

10:40 Vision, Persistence, Commitment, and Leadership: The Role of Irene in the Development of CAEME
Magdy F. Iskander, CAEME



Tuesday AM URSI-B Session 9 Salon A

Scattering

C. Torres-Verdin and R. H. MacPhie

- 8:20 Axial Scattering of a Coated Tubular Cylinder
H.-M. Lee, Naval Postgraduate School
- 8:40 Plane Wave Scattering by Two Coalescing Spheres
R. H. MacPhie, T. Do-Nhat, University of Waterloo
- 9:00 Methods for Evaluating the Performance of Electromagnetic Scattering Prediction Codes
J. P. Meyers, A. J. Terzuoli, Jr., G. C. Gerace, P. F. Auclair, Air Force Institute of Technology
- 9:20 A Fast and Accurate Three-Dimensional Multiple Scattering Approach Involving Large Conductivity Contrasts
Tarek M. Habashy, Carlos Torres-Verdin, Schlumberger-Doll Research*
- 9:40 Modeling Three-Dimensional Scattering Using TransFinite Elements
Xingchao Yuan, Dinkow Sun, Zoltan Cendes, Ansoft Corporation*

10:00 BREAK

- 10:20 Electromagnetic Scattering From a Cylindrical Inlet Using Combined Field Integral Equations
M. D. Deshpande, C. J. Reddy, C. R. Cockrell, F. B. Beck, NASA-Langley Research Center*
- 10:40 Higher Order Statistics of Scattering from Small Clutter Cells
Lisa Mockapetris, Rome Laboratory, Hanscom AFB
- 11:00 On the Rayleigh Approximation for Electromagnetic Scattering from a Small Scatterer
M. A. Karam, A. Stogryn, Aerojet Electronic Systems Plant*
- 11:20 Electromagnetic Scattering from a Continuously Inhomogeneous Random Medium with Cylindrical Symmetry
Magali Jean, MOTHESIM Society
- 11:40 Parameter Estimation of Frequency Dependent Scatterers
JW Odendaal, PA van Jaarsveld, University of Pretoria*
- 12:00 Iterative Minimum Discrepancy Method for Three-Dimensional Scattering Problems
Alexander B. Samokhin, Moscow Institute Radiotehnics



Tuesday AM URSI-K Session 10 Salon F

Electromagnetics in Biology and Medicine

C. M. Rappaport and K. M. Chen

- 8:20 EM Wave Life-Detection System for Post Earthquake Rescue Operations
K. M. Chen, Y. Huang, A. Norman, P. Ilavarasan, Michigan State University*
- 8:40 FDTD Investigation of Electromagnetic Fields on Tumors in the Head
D. B. Dunn, A. J. Terzuoli, Jr., G. C. Gerace, Air Force Institute of Technology, C. M. Rappaport, Northeastern University
- 9:00 Mathematical Aspects of EEG Modeling by the Finite Element Method
Kassem A. Awada, David R. Jackson, Jeffery T. Williams, Donald R. Wilton, University of Houston
- 9:20 Currents Induced in a Person Standing Under or Near a High-Voltage Power Line
Ronald W. P. King, Harvard University, Sheldon S. Sandler, Northeastern University*
- 9:40 Modeling of Magnetic Field Stimulation of the Human Cortex
M. A. Abdeen, M. A. Stuchly, University of Victoria*

10:00 BREAK

- 10:20 Currents Induced in a Growing Monolayer of Biological Cells in Low Frequency Magnetic Fields
A. El-Sayed, M. A. Stuchly, University of Victoria
- 10:40 Computation of the Response of a Realistic Human Body Model to ELF Electric Fields
Trevor W. Dawson, Kris Caputa, Maria A. Stuchly, University of Victoria*
- 11:00 Magnetic Shielding of Cellular Phone Antennas
El-Badawy El-Sharawy, Craig Birtcher, Arizona State University*
- 11:20 Review and Recent Results for in-vivo Ocular Polarimetry in the Presence of Biological Chiral Media
Sunghoon Jang, Laurence R. Welch, Martin D. Fox, Dan Censor, University of Connecticut*

Tuesday AM URSI-B Session 11 Schooner/Sloop

Special Session

Antenna Applications of Photonics

M. L. VanBlaricum and J. Moellers

- 8:20 Broadband Photonic Links for Shipboard Antenna Applications
S. A. Pappert, C. K. Sun, R. J. Orazi, M. H. Berry, NCCOSC*
- 8:40 Fiber-Optic Links for the VHF and UHF Antenna Manifolds
Drew E. Flechsig, Irwin Abramovitz, Westinghouse Electric Corporation*
- 9:00 Optical Analog Links using Linearized Modulators for Antenna Remoting
G. E. Betts, F. J. O'Donnell, K. G. Ray, Lincoln Laboratories*
- 9:20 Array Antenna Time-Steered by a Fiber-Optic Beamformer
Michael Y. Frankel, Ronald D. Esman, Naval Research Laboratory*
- 9:40 Wavelength-multiplexed fiberoptic true time delay steering system
A. Goutzoulis, D. Davies, J. Zomp, P. Hrycak, A. Johnson, J. Moellers, Westinghouse*

10:00 BREAK

- 10:20 Remote Optical control and Tuning of Antenna Elements
Michael L. VanBlaricum, Catherine J. Swann, Thomas L. Larry, Toyon Research Corporation*
- 10:40 Digitally Reconfigurable Antenna
Kris W. Turk, California Microwave, Inc.
- 11:00 A Review of the Photonic Reconfigurable Antenna Technologies Study
Rosemary N. Edwards, William C. Nunnally, University of Texas at Arlington, Bryan C. Miller, Robert B. Liechty, L. Keith Robinette, E-Systems*
- 11:20 Optical Control of Scanning Oscillator Arrays
H. C. Chang, R. A. York, University of California at Santa Barbara*



Tuesday AM URSI-F Session 12 Trimaran/Brigantine

Apmosphere and Propagation for Satellite and Terrestrial Communications

J. Neves and A. Webster

- 8:20 Propagation Channel Characterization at 20 GHz and XPD Frequency Scaling

A. Rocha, J. Neves, University of Aveiro

- 8:40 Estimation of Rain Structure and Ice Anisotropy by Means of a Multipolarization Radiowave Beacon

Aldo Paraboni, Centro Studi Telecomunicazioni Spaziali Piazza, Antonio Martellucci, Alberto Aresu, Fondazione Ugo Bordoni, Rolf Jakoby, Deutsche Bundespost Telekom*

- 9:00 Attenuation and Noise Temperature of Non-Rainy Atmosphere for Satellite Communication Systems

Francesco Barbaliscia, Marina Boumis, Antonio Martellucci, Fondazione Ugo Bordoni*

- 9:20 Modelling of Attenuation Dynamic Measured by Radiometers of the Colorado Research Network

Ed. R. Westwater, NOAA/ERL/ETL, Ermanno Fionda, Antonio Martellucci, Fondazione Ugo Bordoni*



- 9:40 Extended Observations of Fading on Microwave Communications Links

Alan R. Webster, The University of Western Ontario

- 10:00 BREAK

- 10:20 Lidar Atmospheric Measurements of Tropospheric Refractivity during Developing Santa Ana Winds

D. W. Blood, C. R. Philbrick, Penn State University*

- 10:40 Detection and Physical Description of Clouds Making use of Laser-Diode Ceilometer, and Upper Air and Surface Meteorological Data

Francesco Barbaliscia, Marina Boumis, Ermanno Fionda, Fondazione Ugo Bordoni*

