

Author Index,¹ 2000

The Telecommunications and Mission Operations Progress Report

42-141, January–March 2000
42-142, April–June 2000
42-143, July–September 2000
42-144, October–December 2000

Ahlstrom, Jr., H. G.

- 42-143 Tilts of the Master Equatorial Tower, pp. 1–17.
 W. Gawronski, D. Girdner, E. Noskoff, and J. N. Sommerville
- 42-144 Should the Master Equatorial Be a Slave?, pp. 1–22.
 See Gawronski, W.

Altunin, V.

- 42-142 Space Very Long Baseline Interferometry (SVLBI) Mission Operations, pp. 1–17.
 K. Miller, D. Murphy, J. Smith, and R. Wietfeldt

Antreasian, P. G.

- 42-141 Altimeter Range Processing Analysis for Spacecraft Navigation About Small Bodies,
 pp. 1–14.
 See Bordi, J. J.

¹ In the case of joint authorship, the reader is referred to the citation under the first author, where all the authors of the article are listed.

Arabshahi, P.

42-141 Computationally Intelligent Array Feed Tracking Algorithms for Large DSN Antennas, pp. 1–16.

See Mukai, R.

42-143 Tracking Performance of Adaptive Array Feed Algorithms for 70-Meter DSN Antennas, pp. 1–24.

See Mukai, R.

Bar-Sever, Y.

42-144 Water Vapor Radiometer–Global Positioning System Comparison Measurements and Calibration of the 20 to 32 Gigahertz Tropospheric Water Vapor Absorption Model, pp. 1–23.

See Keihm, S. J.

Bernardo, A. M.

42-144 Should the Master Equatorial Be a Slave?, pp. 1–22.

See Gawronski, W.

Bhargava, S.

42-142 A Navigation Model of the Continuous Outgassing Field Around a Comet, pp. 1–19.

See Scheeres, D. J.

Biswas, A.

42-141 Ground-to-Ground Optical Communications Demonstration, pp. 1–31.

S. Lee

42-142 Design of an Opto-Electronic Receiver for Deep-Space Optical Communications, pp. 1–17.

See Ortiz, G. G.

42-142 Preliminary Results of an Upgraded Atmospheric Visibility Monitoring Station, pp. 1–12.

See Sanii, B

Bordi, J. J.

42-141 Altimeter Range Processing Analysis for Spacecraft Navigation About Small Bodies, pp. 1–14.

P. G. Antreasian, J. K. Miller, and B. G. Williams

Britcliffe, M.

42-141 An Improved X-Band Maser System for Deep Space Network Applications, pp. 1–10.

T. Hanson and J. Fernandez

42-143 Deep-Space Optical Reception Antenna (DSORA): Aperture Versus Quality, pp. 1–11.

See Sandusky, J. V.

Butman, S.

42-142 The 1998 Mars Global Surveyor Solar Corona Experiment, pp. 1–18.

See Morabito, D.

Cirillo, Jr., R.

42-142 Experimental Verification of Predicted Sources of *G/T* Improvement for the DSS-13 Beam-Waveguide Antenna, pp. 1–18.

See Otoshi, T. Y.

Clauss, R. C.

42-142 A 32-Gigahertz Coupled-Cavity Maser Design, pp. 1–22.

See Shell, J. S.

Cornish, T.

42-144 Single-Aperture Multiple-Carrier Uplink Using a 20 Kilowatt X-Band Transmitter, pp. 1–20.

Datta, A.

42-142 Preliminary Results of an Upgraded Atmospheric Visibility Monitoring Station, pp. 1–12.

See Sanii, B.

Dick, G. J.

42-143 Cryocooled Sapphire Oscillator Operating Above 35 K, pp. 1–9.

R. T. Wang

Divsalar, D.

42-142 Capacity of Pulse-Position Modulation (PPM) on Gaussian and Webb Channels, pp. 1–31.

See Dolinar, S.

42-143 Optical Channel Capacity Sensitivity, pp. 1–16.

See Hamkins, J.

42-144 Iterative Turbo Decoder Analysis Based on Density Evolution, pp. 1–33.

S. Dolinar and F. Pollara

Dolinar, S.

42-142 Capacity of Pulse-Position Modulation (PPM) on Gaussian and Webb Channels, pp. 1–31.

D. Divsalar, J. Hamkins, and F. Pollara

42-142 Stopping Rules for Turbo Decoders, pp. 1–22.

See Matache, A.

42-143 Optical Channel Capacity Sensitivity, pp. 1–16.

See Hamkins, J.

42-144 Iterative Turbo Decoder Analysis Based on Density Evolution, pp. 1–33.

See Divsalar, D.

Enzian, A.

42-142 A Navigation Model of the Continuous Outgassing Field Around a Comet, pp. 1–19.

See Scheeres, D. J.

Fernandez, J.

42-141 An Improved X-Band Maser System for Deep Space Network Applications, pp. 1–10.

See Britcliffe, M.

Finley, S.

- 42-142 The 1998 Mars Global Surveyor Solar Corona Experiment, pp. 1–18.
See Morabito, D.

Fort, D.

- 42-142 The 1998 Mars Global Surveyor Solar Corona Experiment, pp. 1–18.
See Morabito, D.

Gawronski, W.

- 42-143 A Method and a Graphical User Interface for the Creation of an Azimuth-Track-Level Look-Up Table, pp. 1–17.
See Maneri, E.
- 42-143 Open- and Closed-Loop Dynamics of the High-Efficiency Antenna Subreflector, pp. 1–14.
See Kuczenski, M. B.
- 42-143 Tilts of the Master Equatorial Tower, pp. 1–17.
See Ahlstrom, Jr., H. G.
- 42-144 Should the Master Equatorial Be a Slave?, pp. 1–22.
H. G. Ahlstrom, Jr., and A. M. Bernardo

Girdner, D.

- 42-143 Pointing-Error Measurements of the Master Equatorial Instrument, pp. 1–15.
See Liu, J.
- 42-143 Tilts of the Master Equatorial Tower, pp. 1–17.
See Ahlstrom, Jr., H. G.

Greenhall, C. A.

- 42-143 Common-Source Phase Error of a Dual-Mixer Stability Analyzer, pp. 1–13.

Hamkins, J.

42-142 Capacity of Pulse-Position Modulation (PPM) on Gaussian and Webb Channels, pp. 1–31.

See Dolinar, S.

42-143 Optical Channel Capacity Sensitivity, pp. 1–16.

S. Dolinar and D. Divsalar

Hanson, T.

42-141 An Improved X-Band Maser System for Deep Space Network Applications, pp. 1–10.

See Britcliffe, M.

Ho, C.

42-142 Interference Effects of Deep Space Network Transmitters on IMT-2000/UMTS Receivers at S-Band, pp. 1–21.

M. Sue, T. Peng, P. Kinman, and H. Tan

Hoppe, D. J.

42-143 Deep-Space Optical Reception Antenna (DSORA): Aperture Versus Quality, pp. 1–11.

See Sandusky, J. V.

Huang, J.

42-143 Efficiency Improvement of the Three-Meter Ka-Band Inflatable Reflectarray Antenna, pp. 1–10.

Hurd, W. J.

42-141 Improved Carrier Tracking for Low-Threshold Telemetry Using a Smoother, pp. 1–16.

A. Mileant

Imbriale, W.

42-141 Ceramic Waveguides, pp. 1–21.

See Yeh, C.

Jacobs, C.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

James, M.

42-144 Beacon-Based Exception Analysis for Multimissions: Technology for Autonomous Self-Analysis, pp. 1–15.

See Mackey, R.

Jamnejad, V.

42-141 Ceramic Waveguides, pp. 1–21.

See Yeh, C.

42-141 Computationally Intelligent Array Feed Tracking Algorithms for Large DSN Antennas, pp. 1–16.

See Mukai, R.

Ji, Y.

42-141 A High-Q Millimeter-Wave Dielectric-Resonator Bandpass Filter Using Whispering-Gallery Modes, pp. 1–11.

X. S. Yao and L. Maleki

Keihm, S. J.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

42-144 Water Vapor Radiometer–Global Positioning System Comparison Measurements and Calibration of the 20 to 32 Gigahertz Tropospheric Water Vapor Absorption Model, pp. 1–23.

Y. Bar-Sever and J. Liljegren

Kinman, P.

42-142 Interference Effects of Deep Space Network Transmitters on IMT-2000/UMTS Receivers at S-Band, pp. 1–21.

See Ho, C.

Klimesh, M.

42-144 Hardware Implementation of a Lossless Image Compression Algorithm Using a Field Programmable Gate Array, pp. 1–11.

V. Stanton and D. Watola

Ko, P.

42-144 Achieving and Maintaining Deep Space 1 Spacecraft High-Gain Antenna Pointing Control by Data Monitoring and Immediate Corrective Commanding, pp. 1–23.

See Taylor, J.

Kuczenski, M. B.

42-143 Open- and Closed-Loop Dynamics of the High-Efficiency Antenna Subreflector, pp. 1–14.

W. Gawronski

Lanyi, G.

42-141 A Demonstration of Dual K-Band Frequency Radiometry With the Deep Space Network 70-Meter Antennas, pp. 1–15.

C. Naudet

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Lay, N.

42-144 A Generalized Pre-Processor for Block and Convolutionally Coded Signals, pp. 1–19.

See Vilnrotter, V.

Lee, C.

42-144 A Generalized Pre-Processor for Block and Convolutionally Coded Signals, pp. 1–19.

See Vilnrotter, V.

Lee, S.

42-141 Ground-to-Ground Optical Communications Demonstration, pp. 1–31.

See Biswas, A.

Liljegren, J.

42-144 Water Vapor Radiometer–Global Positioning System Comparison Measurements and Calibration of the 20 to 32 Gigahertz Tropospheric Water Vapor Absorption Model, pp. 1–23.

See Keihm, S. J.

Linfield, R.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Liu, J.

42-143 Pointing-Error Measurements of the Master Equatorial Instrument, pp. 1–15.

D. Girdner

Mackey, R.

42-144 Beacon-Based Exception Analysis for Multimissions: Technology for Autonomous Self-Analysis, pp. 1–15.

M. James, H. Park, and M. Zak

Maleki, L.

42-141 A High-Q Millimeter-Wave Dielectric-Resonator Bandpass Filter Using Whispering-Gallery Modes, pp. 1–11.

See Ji, Y.

42-143 Mercury-Ion Clock Based on a Linear Multi-Pole Ion Trap, pp. 1–8.

See Prestage, J. D.

Maneri, E.

42-143 A Method and a Graphical User Interface for the Creation of an Azimuth-Track-Level Look-Up Table, pp. 1–17.

W. Gawronski

Manshadi, F.

42-141 Ceramic Waveguides, pp. 1–21.

See Yeh, C.

Matache, A.

42-142 Stopping Rules for Turbo Decoders, pp. 1–22.

S. Dolinar and F. Pollara

Mileant, A.

42-141 Improved Carrier Tracking for Low-Threshold Telemetry Using a Smoother, pp. 1–16.

See Hurd, W. J.

Miller, J. K.

42-141 Altimeter Range Processing Analysis for Spacecraft Navigation About Small Bodies, pp. 1–14.

See Bordi, J. J.

Miller, K.

42-142 Space Very Long Baseline Interferometry (SVLBI) Mission Operations, pp. 1–17.

See Altunin, V.

Morabito, D.

42-142 The 1998 Mars Global Surveyor Solar Corona Experiment, pp. 1–18.

S. Shambayati, S. Butman, D. Fort, and S. Finley

Mukai, R.

42-141 Computationally Intelligent Array Feed Tracking Algorithms for Large DSN Antennas, pp. 1–16.

V. Vilnrotter, P. Arabshahi, and V. Jamnejad

42-143 Tracking Performance of Adaptive Array Feed Algorithms for 70-Meter DSN Antennas, pp. 1–24.

V. Vilnrotter and P. Arabshahi

Murphy, D.

42-142 Space Very Long Baseline Interferometry (SVLBI) Mission Operations, pp. 1–17.

See Altunin, V.

Naudet, C.

42-141 A Demonstration of Dual K-Band Frequency Radiometry With the Deep Space Network 70-Meter Antennas, pp. 1–15.

See Lanyi, G.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

C. Jacobs, S. Keihm, G. Lanyi, R. Linfield, G. Resch, L. Riley, H. Rosenberger, and A. Tanner

Noskoff, E.

42-143 Tilts of the Master Equatorial Tower, pp. 1–17.

See Ahlstrom, Jr., H. G.

Ortiz, G. G.

42-142 Design of an Opto-Electronic Receiver for Deep-Space Optical Communications, pp. 1–17.

J. V. Sandusky and A. Biswas

Otoshi, T. Y.

42-141 Development of a Bird Net Cover for DSN Beam-Waveguide Antennas, pp. 1–6.

W. Veruttipong and J. Sosnowski

42-142 Experimental Verification of Predicted Sources of *G/T* Improvement for the DSS-13 Beam-Waveguide Antenna, pp. 1–18.

W. Veruttipong, J. Sosnowski, and R. Cirillo, Jr.

42-143 Determination of the Follow-up Receiver Noise-Temperature Contribution, pp. 1–11.

Park, H.

42-144 Beacon-Based Exception Analysis for Multimissions: Technology for Autonomous Self-Analysis, pp. 1–15.

See Mackey, R.

42-144 The Gray-Box Approach to Sensor Data Analysis, pp. 1–11.

See Zak, M.

Peng, T.

42-142 Interference Effects of Deep Space Network Transmitters on IMT-2000/UMTS Receivers at S-Band, pp. 1–21.

See Ho, C.

Pollara, F.

42-142 Capacity of Pulse-Position Modulation (PPM) on Gaussian and Webb Channels, pp. 1–31.

See Dolinar, S.

42-142 Stopping Rules for Turbo Decoders, pp. 1–22.

See Matache, A.

42-144 Iterative Turbo Decoder Analysis Based on Density Evolution, pp. 1–33.

See Divsalar, D.

Prestage, J. D.

42-143 Mercury-Ion Clock Based on a Linear Multi-Pole Ion Trap, pp. 1–8.

R. L. Tjoelker and L. Maleki

Resch, G.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Riley, L.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Rosenberger, H.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Sandusky, J. V.

42-142 Design of an Opto-Electronic Receiver for Deep-Space Optical Communications, pp. 1–17.

See Ortiz, G. G.

42-143 Deep-Space Optical Reception Antenna (DSORA): Aperture Versus Quality, pp. 1–11.

D. J. Hoppe and M. J. Britcliffe

Sanii, B.

42-142 Preliminary Results of an Upgraded Atmospheric Visibility Monitoring Station, pp. 1–12.

A. Datta, D. Tsiang, J. Wu, and A. Biswas

Scheeres, D. J.

42-141 A Comparison of Close-Proximity Operations at Asteroids and Comets, pp. 1–12.

42-142 A Navigation Model of the Continuous Outgassing Field Around a Comet, pp. 1–19.

S. Bhargava and A.ENZIAN

Shambayati, S.

42-142 The 1998 Mars Global Surveyor Solar Corona Experiment, pp. 1–18.

See Morabito, D.

Shell, J. S.

42-142 A 32-Gigahertz Coupled-Cavity Maser Design, pp. 1–22.

R. C. Clauss

Shimabukuro, F.

42-141 Ceramic Waveguides, pp. 1–21.

See Yeh, C.

Smith, J.

42-142 Space Very Long Baseline Interferometry (SVLBI) Mission Operations, pp. 1–17.

See Altunin, V.

Sommerville, J. N.

42-143 Tilts of the Master Equatorial Tower, pp. 1–17.

See Ahlstrom, Jr., H. G.

Sosnowski, J.

42-141 Development of a Bird Net Cover for DSN Beam-Waveguide Antennas, pp. 1–6.

See Otoshi, T. Y.

42-142 Experimental Verification of Predicted Sources of *G/T* Improvement for the DSS-13 Beam-Waveguide Antenna, pp. 1–18.

See Otoshi, T. Y.

Srinivasan, M.

42-141 Adaptive Detector Arrays for Optical Communications Receivers, pp. 1–22.

See Vilnrotter, V.

42-144 Avalanche Photodiode Arrays for Optical Communications Receivers, pp. 1–10.

V. Vilnrotter

Stanton, P.

42-141 Ceramic Waveguides, pp. 1–21.

See Yeh, C.

Stanton, V.

42-144 Hardware Implementation of a Lossless Image Compression Algorithm Using a Field Programmable Gate Array, pp. 1–11.

See Klimesh, M.

Sue, M.

42-142 Interference Effects of Deep Space Network Transmitters on IMT-2000/UMTS Receivers at S-Band, pp. 1–21.

See Ho, C.

Tan, H.

42-142 Interference Effects of Deep Space Network Transmitters on IMT-2000/UMTS Receivers at S-Band, pp. 1–21.

See Ho, C.

Tanner, A. B.

42-143 Embedding a Water Vapor Radiometer in a DSN Antenna: Experimental Results From DSS 13, pp. 1–23.

42-143 The Media Calibration System for Cassini Radio Science: Part I, pp. 1–8.

See Naudet, C.

Taylor, J.

42-144 Achieving and Maintaining Deep Space 1 Spacecraft High-Gain Antenna Pointing Control by Data Monitoring and Immediate Corrective Commanding, pp. 1–23.

P. Ko

Tjoelker, R. L.

42-143 Mercury-Ion Clock Based on a Linear Multi-Pole Ion Trap, pp. 1–8.

See Prestage, J. D.

Tsiang, D.

42-142 Preliminary Results of an Upgraded Atmospheric Visibility Monitoring Station, pp. 1–12.

See Sanii, B

Veruttipong, W.

42-141 Development of a Bird Net Cover for DSN Beam-Waveguide Antennas, pp. 1–6.

See Otoshi, T. Y.

42-142 Experimental Verification of Predicted Sources of *G/T* Improvement for the DSS-13 Beam-Waveguide Antenna, pp. 1–18.

See Otoshi, T. Y.

Vilnrotter, V.

- 42-141 Adaptive Detector Arrays for Optical Communications Receivers, pp. 1–22.
M. Srinivasan
- 42-141 Computationally Intelligent Array Feed Tracking Algorithms for Large DSN Antennas, pp. 1–16.
See Mukai, R.
- 42-143 Tracking Performance of Adaptive Array Feed Algorithms for 70-Meter DSN Antennas, pp. 1–24.
See Mukai, R.
- 42-144 Avalanche Photodiode Arrays for Optical Communications Receivers, pp. 1–10.
See Srinivasan, M.
- 42-144 A Generalized Pre-Processor for Block and Convolutionally Coded Signals, pp. 1–19.
C. Lee and N. Lay

Wang, R. T.

- 42-143 Cryocooled Sapphire Oscillator Operating Above 35 K, pp. 1–9.
See Dick, G. J.

Watola, D.

- 42-144 Hardware Implementation of a Lossless Image Compression Algorithm Using a Field Programmable Gate Array, pp. 1–11.
See Klimesh, M.

Wietfeldt, R.

- 42-142 Space Very Long Baseline Interferometry (SVLBI) Mission Operations, pp. 1–17.
See Altunin, V.

Williams, B. G.

- 42-141 Altimeter Range Processing Analysis for Spacecraft Navigation About Small Bodies, pp. 1–14.
See Bordi, J. J.

Wright, M. W.

42-142 Characterization of a High-Speed, High-Power Semiconductor Master-Oscillator Power-Amplifier (MOPA) Laser as a Free-Space Transmitter, pp. 1–11.

Wu, J.

42-142 Preliminary Results of an Upgraded Atmospheric Visibility Monitoring Station, pp. 1–12.

See Sanii, B

Yao, X. S.

42-141 A High-Q Millimeter-Wave Dielectric-Resonator Bandpass Filter Using Whispering-Gallery Modes, pp. 1–11.

See Ji, Y.

Yeh, C.

42-141 Ceramic Waveguides, pp. 1–21.

F. Shimabukuro, P. Stanton, V. Jamnejad, W. Imbriale, and F. Manshadi

Zak, M.

42-144 Beacon-Based Exception Analysis for Multimissions: Technology for Autonomous Self-Analysis, pp. 1–15.

See Mackey, R.

42-144 The Gray-Box Approach to Sensor Data Analysis, pp. 1–11.

H. Park