

## Author Index,<sup>1</sup> 1995

### *The Telecommunications and Data Acquisition Progress Report*

*42-121, January–March 1995*  
*42-122, April–June 1995*  
*42-123, July–September 1995*  
*42-124, October–December 1995*

#### **Anabtawi, A.**

- 42-121 Computer Simulation Results for PCM/PM/NRZ Receivers in Nonideal Channels, pp. 27–53.  
T. M. Nguyen and S. Million

#### **Bar-Sever, Y. E.**

- 42-123 A New Model for Yaw Attitude of Global Positioning System Satellites, pp. 37–46.

#### **Bartos, R.**

- 42-124 Modeling and Analysis of the DSS-14 Antenna Control System, pp. 113–142.  
See Gawronski, W.

#### **Belongie, M.**

- 42-121 Enhanced Decoding for the Galileo Low-Gain Antenna Mission: Viterbi Redecoding With Four Decoding Stages, pp. 96–109.  
See Dolinar, S.
- 42-121 Rate Considerations in Deep Space Telemetry, pp. 9–15.  
See Costa, M.

---

<sup>1</sup> 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.

**Benedetto, S.**

- 42-124      Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes, pp. 63–87.  
D. Divsalar, G. Montorsi, and F. Pollara

**Bevan, R.**

- 42-124      Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.  
See Hill, Jr., R.

**Bhaskaran, S.**

- 42-121      The Application of Noncoherent Doppler Data Types for Deep Space Navigation, pp. 54–65.

**Chen, J. C.**

- 42-124      A Prototype Ka-/Ka-Band Dichroic Plate With Stepped Rectrangular Apertures, pp. 143–152.  
P. H. Stanton and H. F. Reilly, Jr.

**Chen, R.**

- 42-124      Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.  
See Hill, Jr., R.

**Cheung, K.-M.**

- 42-124      Channel Capacity of an Array System for Gaussian Channels With Applications to Combining and Noise Cancellation, pp. 53–62.  
V. Vlnrotter

**Chien, S.**

- 42-124      Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.  
See Hill, Jr., R.

**Costa, M.**

- 42-121      Rate Considerations in Deep Space Telemetry, pp. 9–15.  
M. Belongie and F. Pollara

**Divsalar, D.**

- 42-121 Multiple Turbo Codes for Deep-Space Communications, pp. 66–77.  
F. Pollara
- 42-122 Transfer Function Bounds on the Performance of Turbo Codes, pp. 44–55.  
S. Dolinar, R. J. McEliece, and F. Pollara
- 42-122 Weight Distributions for Turbo Codes Using Random and Nonrandom Permutations, pp. 56–65.  
See Dolinar, S.
- 42-123 On the Design of Turbo Codes, pp. 99–121.  
F. Pollara
- 42-124 Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes, pp. 63–87.  
See Benedetto, S.

**Dolinar, S.**

- 42-121 Enhanced Decoding for the Galileo Low-Gain Antenna Mission: Viterbi Redecoding With Four Decoding Stages, pp. 96–109.  
M. Belongie
- 42-121 Minimal Trellises for Linear Block Codes and Their Duals, pp. 148–158.  
See Kiely, A. B.
- 42-121 Testing the Performance of the Feedback Concatenated Decoder With a Nonideal Receiver, pp. 110–130.  
See Feria, Y.
- 42-121 Trellis Complexity Bounds for Decoding Linear Block Codes, pp. 159–172.  
See Kiely, A. B.
- 42-122 Transfer Function Bounds on the Performance of Turbo Codes, pp. 44–55.  
See Divsalar, D.
- 42-122 Weight Distributions for Turbo Codes Using Random and Nonrandom Permutations, pp. 56–65.  
D. Divsalar

**Ekroot, L.**

42-121 Minimal Trellises for Linear Block Codes and Their Duals, pp. 148–158.

See Kiely, A. B.

42-121 Trellis Complexity Bounds for Decoding Linear Block Codes, pp. 159–172.

See Kiely, A. B.

42-122 Analysis of Automatic Repeat Request Methods for Deep-Space Downlinks, pp. 66–83.

See Pollara, F.

**Esquivel, M. S.**

42-122 Novel Solutions to Low-Frequency Problems With Geometrically Designed Beam-Waveguide Systems, pp. 138–150.

See Imbriale, W. A.

**Estefan, J. A.**

42-123 Sensitivity of Planetary Cruise Navigation to Earth Orientation Calibration Errors, pp. 1–29.

W. M. Folkner

**Fayyad, K.**

42-124 Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.

See Hill, Jr., R.

**Feria, Y.**

42-121 Degradation in Finite-Harmonic Subcarrier Demodulation, pp. 78–86.

T. Pham and S. Townes

42-121 Testing the Performance of the Feedback Concatenated Decoder With a Nonideal Receiver, pp. 110–130.

S. Dolinar

42-121 Towards Optimum Demodulation of Bandwidth-Limited and Low SNR Square-Wave Subcarrier Signals, pp. 87–95.

W. Hurd

**Fernandez, J. E.**

42-123 System Noise Temperature Investigation of the DSN S-Band Polarization Diverse Systems for the Galileo S-Band Contingency Mission, pp. 140–148.

D. L. Trowbridge

**Folkner, W. M.**

42-121 Determination of the Position of Jupiter From Radio Metric Tracking of Voyager 1, pp. 1–8.

R. J. Haw

42-123 Sensitivity of Planetary Cruise Navigation to Earth Orientation Calibration Errors, pp. 1–29.

See Estefan, J. A.

**Gawronski, W.**

42-123 Wind Gust Models Derived From Field Data, pp. 30–36.

42-124 Modeling and Analysis of the DSS-14 Antenna Control System, pp. 113–142.

R. Bartos

**Greenhall, C. A.**

42-121 Digital Signal Processing in the Radio Science Stability Analyzer, pp. 271–287.

**Haw, R. J.**

42-121 Determination of the Position of Jupiter From Radio Metric Tracking of Voyager 1, pp. 1–8.

See Folkner, W. M.

**Hill, Jr., R.**

42-124 Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.

K. Fayyad, C. Smyth, T. Santos, R. Chen, S. Chien, and R. Bevan

**Hinedi, S.**

42-121 Residual and Suppressed-Carrier Arraying Techniques for Deep-Space Communications, pp. 173–201.

See Shihabi, M.

42-122 Noncausal Telemetry Data Recovery Techniques, pp. 84–96.  
See Tsou, H.

**Hurd, W.**

42-121 Towards Optimum Demodulation of Bandwidth-Limited and Low SNR Square-Wave Subcarrier Signals, pp. 87–95.  
See Feria, Y.

**Imbriale, W. A.**

42-122 Novel Solutions to Low-Frequency Problems With Geometrically Designed Beam-Waveguide Systems, pp. 138–150.  
M. S. Esquivel and F. Manshadi

**Jackson, H. J.**

42-121 DSS-24 Microwave Holography Measurements, pp. 252–270.  
See Rochblatt, D. J.

**Jeganathan, M.**

42-124 Preliminary Analysis of Fluctuations in the Received Uplink-Beacon-Power Data Obtained From the GOLD Experiments, pp. 20–32.  
K. E. Wilson and J. R. Lesh

**Kayalar, S.**

42-122 Performance of a Ka-Band Transponder Breadboard for Deep-Space Applications, pp. 175–188.  
See Mysoor, N. R.

**Keihm, S. J.**

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.  
See Linfield, R. P.

42-122 Water Vapor Radiometer Measurements of the Tropospheric Delay Fluctuations at Goldstone Over a Full Year, pp. 1–11.

**Kermode, A. W.**

- 42-122 Performance of a Ka-Band Transponder Breadboard for Deep-Space Applications, pp. 175–188.  
See Mysoor, N. R.

**Kiely, A. B.**

- 42-121 Minimal Trellises for Linear Block Codes and Their Duals, pp. 148–158.  
S. Dolinar, R. J. McEliece, L. Ekroot, and W. Lin
- 42-121 A Seismic Data Compression System Using Subband Coding, pp. 242–251.  
F. Pollara
- 42-121 Trellis Complexity Bounds for Decoding Linear Block Codes, pp. 159–172.  
S. Dolinar, R. J. McEliece, L. Ekroot, and W. Lin
- 42-124 Progressive Transmission and Compression of Images, pp. 88–103.

**Lane, J. P.**

- 42-122 Performance of a Ka-Band Transponder Breadboard for Deep-Space Applications, pp. 175–188.  
See Mysoor, N. R.

**Lee, R.**

- 42-122 Noncausal Telemetry Data Recovery Techniques, pp. 84–96.  
See Tsou, H.

**Lesh, J. R.**

- 42-124 Preliminary Analysis of Fluctuations in the Received Uplink-Beacon-Power Data Obtained From the GOLD Experiments, pp. 20–32.  
See Jeganathan, M.

**Liang, R.**

- 42-124 Optimum Combining of Residual Carrier Array Signals in Correlated Noises, pp. 33–52.  
See Tan, H. H.

**Lin, W.**

42-121 Minimal Trellises for Linear Block Codes and Their Duals, pp. 148–158.

See Kiely, A. B.

42-121 Trellis Complexity Bounds for Decoding Linear Block Codes, pp. 159–172.

See Kiely, A. B.

42-123 The Trellis Complexity of Convolutional Codes, pp. 122–139.

See McEliece, R. J.

**Linfield, R. P.**

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

L. P. Teitelbaum, L. J. Skjerve, S. J. Keihm, S. J. Walter, M. J. Mahoney, and R. N. Treuhaft

42-124 The Effect of Aperture Averaging Upon Tropospheric Delay Fluctuations Seen With a DSN Antenna, pp. 1–7.

**Lo, V. Y.**

42-124 Ka-Band Monopulse Antenna-Pointing Systems Analysis and Simulation, pp. 104–112.

**Lutes, G.**

42-121 A High-Speed Photonic Clock and Carrier Regenerator, pp. 202–210.

See Yao, X. S.

**Mahoney, M. J.**

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

See Linfield, R. P.

**Maleki, L.**

42-122 A Novel Photonic Oscillator, pp. 32–43.

See Yao, X. S.

42-123 A Light-Induced Microwave Oscillator, pp. 47–68.  
See Yao, X. S.

**Manshadi, F.**

42-122 Novel Solutions to Low-Frequency Problems With Geometrically Designed Beam-Waveguide Systems, pp. 138–150.  
See Imbriale, W. A.

**McEliece, R. J.**

42-121 Minimal Trellises for Linear Block Codes and Their Duals, pp. 148–158.  
See Kiely, A. B.

42-121 Trellis Complexity Bounds for Decoding Linear Block Codes, pp. 159–172.  
See Kiely, A. B.

42-122 Transfer Function Bounds on the Performance of Turbo Codes, pp. 44–55.  
See Divsalar, D.

42-123 The Trellis Complexity of Convolutional Codes, pp. 122–139.  
W. Lin

**Mileant, A.**

42-122 Noncausal Telemetry Data Recovery Techniques, pp. 84–96.  
See Tsou, H.

**Million, S.**

42-121 Computer Simulation Results for PCM/PM/NRZ Receivers in Nonideal Channels, pp. 27–53.  
See Anabtawi, A.

42-121 Residual and Suppressed-Carrier Arraying Techniques for Deep-Space Communications, pp. 173–201.  
See Shihabi, M.

**Montorsi, G.**

- 42-124      Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes, pp. 63–87.  
See Benedetto, S.

**Moon, T.**

- 42-123      Optimum Detection of Tones Transmitted by a Spacecraft, pp. 69–98.  
See Simon, M. K.

**Morabito, D. D.**

- 42-122      Analysis of Tipping-Curve Measurements Performed at the DSS-13 Beam-Waveguide Antenna at  
32 and 8.45 Gigahertz, pp. 151–174.  
L. Skjerve

**Mysoor, N. R.**

- 42-122      Performance of a Ka-Band Transponder Breadboard for Deep-Space Applications, pp. 175–188.  
J. P. Lane, S. Kayalar, and A. W. Kermode

**Nguyen, T. M.**

- 42-121      An Efficient Implementation of Forward–Backward Least-Mean-Square Adaptive Line Enhancers,  
pp. 16–26.  
See Yeh, H.-G.
- 42-121      Computer Simulation Results for PCM/PM/NRZ Receivers in Nonideal Channels, pp. 27–53.  
See Anabtawi, A.

**Pham, T.**

- 42-121      Degradation in Finite-Harmonic Subcarrier Demodulation, pp. 78–86.  
See Feria, Y.

**Pollara, F.**

- 42-121      Multiple Turbo Codes for Deep-Space Communications, pp. 66–77.  
See Divsalar, D.

- 42-121 Rate Considerations in Deep Space Telemetry, pp. 9–15.  
See Costa, M.
- 42-121 A Seismic Data Compression System Using Subband Coding, pp. 242–251.  
See Kiely, A. B.
- 42-122 Analysis of Automatic Repeat Request Methods for Deep-Space Downlinks, pp. 66–83.  
L. Ekroot
- 42-122 Transfer Function Bounds on the Performance of Turbo Codes, pp. 44–55.  
See Divsalar, D.
- 42-123 On the Design of Turbo Codes, pp. 99–121.  
See Divsalar, D.
- 42-124 Soft-Output Decoding Algorithms in Iterative Decoding of Turbo Codes, pp. 63–87.  
See Benedetto, S.

**Reilly, Jr., H. F.**

- 42-124 A Prototype Ka-/Ka-Band Dichroic Plate With Stepped Rectrangular Apertures, pp. 143–152.  
See Chen, J. C.

**Richter, P. H.**

- 42-122 Estimating Errors in Least-Squares Fitting, pp. 107–137.

**Rochblatt, D. J.**

- 42-121 DSS-24 Microwave Holography Measurements, pp. 252–270.  
P. M. Withington and H. J. Jackson

**Santos, T.**

- 42-124 Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.  
See Hill, Jr., R

**Shah, B.**

42-121 Residual and Suppressed-Carrier Arraying Techniques for Deep-Space Communications, pp. 173–201.

See Shihabi, M.

**Shihabi, M. M.**

42-121 Residual and Suppressed-Carrier Arraying Techniques for Deep-Space Communications, pp. 173–201.

B. Shah, S. Hinedi, and S. Million

42-123 Optimum Detection of Tones Transmitted by a Spacecraft, pp. 69–98.

See Simon, M. K.

**Simon, M. K.**

42-122 Carrier Arraying—Revisited, pp. 97–106

42-123 Optimum Detection of Tones Transmitted by a Spacecraft, pp. 69–98.

M. M. Shihabi and T. Moon

**Skjerve, L. J.**

42-122 Analysis of Tipping-Curve Measurements Performed at the DSS-13 Beam-Waveguide Antenna at 32 and 8.45 Gigahertz, pp. 151–174.

See Morabito, D. D.

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

See Linfield, R. P.

**Smyth, C.**

42-124 Sequence-of-Events-Driven Automation of the Deep Space Network, pp. 153–173.

See Hill, Jr., R.

**Stanton, P. H.**

42-124 A Prototype Ka-/Ka-Band Dichroic Plate With Stepped Rectrangular Apertures, pp. 143–152.

See Chen, J. C.

**Suen, P.-H.**

42-124 Optimum Combining of Residual Carrier Array Signals in Correlated Noises, pp. 33–52.

See Tan, H. H.

**Tan, H. H.**

42-121 Performance of Residual Carrier Array-Feed Combining in Correlated Noise, pp. 131–147.

42-124 Optimum Combining of Residual Carrier Array Signals in Correlated Noises, pp. 33–52.

R. Liang and P.-H. Suen

**Teitelbaum, L. P.**

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

See Linfield, R. P.

**Townes, S.**

42-121 Degradation in Finite-Harmonic Subcarrier Demodulation, pp. 78–86.

See Feria, Y.

**Treuhart, R. N.**

42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

See Linfield, R. P.

**Trowbridge, D. L.**

42-123 System Noise Temperature Investigation of the DSN S-Band Polarization Diverse Systems for the Galileo S-Band Contingency Mission, pp. 140–148.

See Fernandez, J. E.

**Tsou, H.**

42-122 Noncausal Telemetry Data Recovery Techniques, pp. 84–96.

R. Lee, A. Mileant, and S. Hinedi

**Vazirani, P.**

- 42-121 Effects of Correlated Noise on the Full-Spectrum Combining and Complex-Symbol Combining Arraying Techniques, pp. 211–241.

**Vilnrotter, V.**

- 42-124 Channel Capacity of an Array System for Gaussian Channels With Applications to Combining and Noise Cancellation, pp. 53–62.

See Cheung, K.-M.

**Yao, X. S.**

- 42-121 A High-Speed Photonic Clock and Carrier Regenerator, pp. 202–210.

G. Lutes

- 42-122 A Novel Photonic Oscillator, pp. 32–43.

L. Maleki

- 42-123 A Light-Induced Microwave Oscillator, pp. 47–68.

L. Maleki

**Yeh, H.-G.**

- 42-121 An Efficient Implementation of Forward–Backward Least-Mean-Square Adaptive Line Enhancers, pp. 16–26.

T. M. Nguyen

**Walter, S. J.**

- 42-122 A Test of Water Vapor Radiometer-Based Troposphere Calibration Using VLBI Observations on a 21-Kilometer Baseline, pp. 12–31.

See Linfield, R. P.

**Wilson, K. E.**

- 42-124 An Overview of the GOLD Experiment Between the ETS-VI Satellite and the Table Mountain Facility, pp. 8–19.

- 42-124 Preliminary Analysis of Fluctuations in the Received Uplink-Beacon-Power Data Obtained From the GOLD Experiments, pp. 20–32.

See Jeganathan, M.

**Withington, P. M.**

42-121 DSS-24 Microwave Holography Measurements, pp. 252–270.

See Rochblatt, D. J.