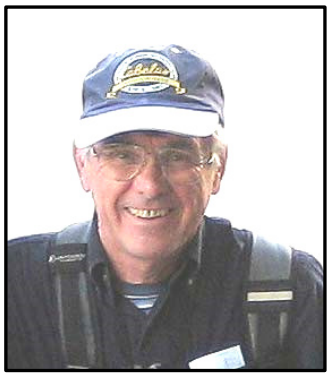
Lonnie C. Ludeman

Curriculum Vitae **August 2022**



CONTACT INFORMATION

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EDUCATION:

B.S.E.E- South Dakota School of Mines and Tech., 1963
M.S.E.E. South Dakota School of Mines and Tech, 1964
Ph.D. Electrical Engineering - Arizona State University, 1968

PRESENT POSITION:

Professor Emeritus - New Mexico State University

MEMBER OF:

Society of American Archaeology (SAA), Dona Ana Archaeology Society,
Eta Kappa Nu, Tau Beta Pi, Sigma Xi.

MAJOR HONORS AND AWARDS:

Crabtree Award (2021) presented annually by the Society of American Archaeology to an outstanding avocational archaeologist who has made significant contributions to advance understandings of local, regional, or national archaeology.

Alexander J. Lindsay, Jr. Unsung Hero Award (2019) presented annually by the Arizona Archaeological and Historical Society at the Pecos Conference.

Fulbright Scholar (Greece, Fall 1993)

Outstanding Book Award from Choice Magazine 1987 for my textbook "Fundamentals of Digital Signal Processing", published by Harper& Row, 1986 and later by John Wiley, Inc, 1987.

BOOKS PUBLISHED

"Random Processes: Filtering, Estimation and Detection", Lonnie C. Ludeman Dec. 2003, John Wiley & Sons. Feb. 2005. Chinese Translation of English Edition, Publishing House of Electronics Industry, Beijing, ROC and John Wiley & Sons.

"**Fundamentals of Digital Signal Processing**", Lonnie C. Ludeman, Harper & Row, 1986, John Wiley & Sons, 1987; Wiley International Edition, 1988.

Solutions Manual to Accompany Fundamentals of Digital Signal Processing, Harper & Row, 1986.

Pattern Recognition: Statistical and Neural", Lonnie C. Ludeman, manuscript in progress.

MOGOLLON ARCHAEOLOGY SERVICE

Organized and Chaired the **20th Biennial Mogollon Archaeology Conference (**Oct. 11-13, 2018**)** New Mexico State University. (154 participants and 47 papers).

Organized and Chaired the **18th Biennial Mogollon Archaeology Conference (**Oct. 9-11, 2014**)** New Mexico State University. (150 participants and 39 papers).

Organized and Chaired the **16th Biennial Mogollon Archaeology Conference (**Oct. 14-16, 2010**)** New Mexico State University. (162 participants and 38 papers).

Currently preparing the paperwork for establishing the non-profit organization: **Friends of Mogollon Archaeology** as a supporting organization for the Mogollon Archaeology Conferences.

MOGOLLON ARCHAEOLOGY PUBLICATIONS

Collected, edited, designed, published, and distributed the following Mogollon Conference Proceedings:

" Selected Papers from the 20th Biennial Mogollon Archaeology Conference"
Printed by LithExcel. April 2019. (262 pages) ISBN: 978-0-9893174-3-6

" Selected Papers from the 19th Biennial Mogollon Archaeology Conference"
Printed by Edwards Brothers-Malloy. March 2017. (230 pages) ISBN: 978-0-9893174-2-9

"Selected Papers from the 18th Biennial Mogollon Archaeology Conference
Printed by Edwards Brothers-Malloy. March 2015. (250 pages) ISBN: 978-0-9893174-1-2

"Selected Papers from the 17th Biennial Mogollon Archaeology Conference
Printed by Edwards Brothers-Malloy. March 2013. (184 pages) ISBN: 978-0-9893174

Selected Papers from the 16th Biennial Mogollon ArchaeologyConference
Printed by Edwards Brothers. March 2012. (128 pages)

Conference Proceedings CD for the **13th Mogollon Archaeology Conference**
held in Silver City, New Mexico. March 2005.

ARCHAEOLOGY FIELDWORK EXPERIENCE:

Volunteer Crew, Coal Bed Village, BYU, Weber State, and NMSU Project, **Summer 2021**, July 12- 23, 2021 (2 weeks), **Summer 2022,** July 11-15 2022 (1 week). Supervisors: Dr. James Allison, Dr. David Yoder, and Dr. Fumi Arakawa.

Volunteer Crew, NMSU Field School at South Diamond Creek Pueblo, **Summer 2021,**
May 16-17, 2021 Set up grid. May 23-June 11, 2021. (3 weeks) Supervisor: Dr Fumi Arakawa

Volunteer Crew, NMSU Field School at South Diamond Creek Pueblo, **Summer 2019**
May 22-June 28, 2019. (3 weeks) Supervisor: Dr Fumi Arakawa

Volunteer Crew, NMSU Field School at South Diamond Creek Pueblo, **Summer 2017**
May 24-June 30, 2017. (1 week) Supervisor: Dr Fumi Arakawa

Volunteer Crew, South Diamond Creek Pueblo, **Summer 2016,** May 16-June 10, 2016, (4 weeks)
Supervisor: Dr Fumi Arakawa

Volunteer Crew, NMSU Field School, Twin Pines Site, **Summer 2015,** May 21-July 2, 2015. (6 Weeks)
Supervisor: Dr Fumi Arakawa

Volunteer Crew , University of Nevada, Las Vegas Field School, **Summer 2013,** June 10-July 12, 2013 (5 weeks)
Supervisor: Dr. Karen Harry

Volunteer Crew, Widrow Ruin , May 15-June 7, 2013 (3 weeks) **Summer 2013**
Supervisor: Jakob Sedig

Organized and directed project with Kevin Hurley of Geometrics, Inc. for a Geophysical Survey of specific areas at the Cottonwood Spring Site (1 Week): **Sept 23-28, 2012**.

Survey Crew, in the Cottonwood Spring Area (5 days) **Fall 2012**
Supervisor: Dr. Meade Kemrer

Volunteer Crew, NMSU Field School, Cottonwood Spring Site near Organ, NM,
Summer 2012 (4 weeks) Supervisor: Dr. William Walker

Volunteer Crew, Black Mountain Site, North West of Deming, NM, **Summer 2012** (2 weeks) Supervisor: Katie Putsavage

Staff, Crew Chief, Photographer, Archaeomagnetic Dating, and Computer Expert for the NMSU La Frontera Field School at the Kipp Ruin site near Deming, New Mexico, **Summer 2006** (6 weeks). Supervisor: Dr. William Walker.

Volunteer Crew Chief, Mesa Portales Archaeological Project (Eastern New Mexico University/BLM), Near Cuba, NM, (3 weeks), **Summer 2005**. Supervisor: Dr. Stephen R. Durand.

Staff, Crew Chief, Photographer, and Computer Expert for the NMSU La Frontera Field School at the Joyce Well site in the "boot heel" of New Mexico, **Summer 2004** (6 weeks). Supervisor: Dr. William Walker

Volunteer Staff, Mesa Portales Archaeological Project (Eastern New Mexico University/BLM), Near Cuba, NM, (6 weeks), **Summer 2003**. Supervisor: Dr. Stephen R. Durand.

Field archaeologist, laboratory work, and site photographer, Galindo Archaeological Project (U. of New Mexico), near Trujillo, Peru (4 1/2 weeks), **Summer 2002**. Supervisor: Greg Lockhard.

Archaeology Research Volunteer, Crow Canyon Archaeological Center, Cortez, Colorado, Taking and analyzing core samples for testing resistivity anomalies (6 weeks), **Summer 2002**. Supervisor: Susan Ryan.

Staff, Crew Chief, Photographer, Mapping, and, Archaeomagnetic dating for the NMSU, La Frontera Field School at the Joyce Well Site, in the "boot heel" of New Mexico,**Summer 2001 (**6 weeks); **Summer 2000 (**6 weeks**);** and **Summer 1999** (6 weeks). Supervisor: Dr. William Walker

Survey and Mapping at the Valley of Peace Archaeological Project, a Maya site in Belize near Belmopan, **Summer 1998** (6 weeks). Supervisor: Dr. Lisa Lucero.

Crew Chief at the NMSU Field School, Jackrabbit Site, Northern Arizona, **Summer 1997** (6 weeks). Supervisor: Dr. William Walker.

Principal Investigator, Sound response of a square Kiva at Coronado State Park, Bernalillo, New Mexico, **1997** (1 day).

Principal Investigator, GPR at Homolovi State Park, Arizona, **1997**, (1 week field, 3 month research). SAA Poster Paper 2000

Volunteer at the University of Arizona Field School at Homolovi State Park, Arizona, **Summer 1996**, (4 days). Supervisor: Dr. E Charles Adams

PROFESSIONAL ARCHAEOLOGY WORKSHOPS ATTENDED

GPR workshop, SAA 2000 (1 day). Archaeomagnetic Dating Workshop, SAA 1999 (1 day), Archaeomagnetic Dating Training, Joyce Well Site, Summer 2001 by Eric Blinman(1 day)

PROFESSIONAL ARCHAEOLOGY PRESENTATIONS

"Summary of the NMSU 2004 Field Season at Joyce Well", with William Walker, Mark Sechrist, et al, **13th Mogollon Archaeology Conference**, Sept 30-Oct 2, 2004.

"Software with Graphical User Interface (GUI) for processing of Archaeological Ground Penetrating Radar (GPR)Data", with Kyung-Sik Seo, **Society for American Archaeology 65th Annual Meeting Philadelphia**, April 5-9, 2000.

"How Ritual Affects Stratigraphy: A Mathematical approach", with William H. Walker,

Society for American Archaeology 65th Annual Meeting Philadelphia, April 5-9, 2000

LECTURES PRESENTED:

Taught a Graduate course **ANTH 598: Quantifying Archaeology,** Spring Semester 2003 Anthropology and Sociology Department, New Mexico State University,

Classroom Lectures on GPR at Homolovi Field School and on the Grand Gulch at NMSU Joyce Well field school.

ARCHAEOLOGY COMPUTER WORK:

Mapping, Database, and Web Design and Management for the NMSU Field School at the Jackrabbit site, 1997, and the NMSU Field School at the Joyce Well site, 1999, 2000, 2001, and 2004.

RESEARCH INTERESTS:

Specific current research interests are clustering of archaeological non-numeric data, use of fuzzy data in archaeological context, acoustical measurements for southwestern kivas, ground penetrating radar for archaeology, neural networks for pattern recognition, and information fusion for electronic vision systems.

ARCHAEOLOGY CONFERENCES ATTENDED

Society of American Archaeology Annual Meeting: 1998, 1999, 2000, 2002, 2004, 2005, 2011, 2015, 2016

Mogollon Archaeology Conference: 2000, 2002, 2004, 2006, 2010, 2012, 2014, 2016, 2018, 2019

Jornada Mogollon Archaeology Conference: 2001, 2003, 2007, 2009, 2011, 2013, 2015, 2017

Pecos Conference: 2004, 2005, 2007, 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2021

OTHER ARCHAEOLOGICAL RELATED ACTIVITIES:

Led the following backpack trips (number of times): the Grand Gulch Wilderness Area, Utah(3); Bandelier, New Mexico(2); Paria Canyon, Utah and Arizona(1); Pecos Wilderness Area, New Mexico(8); Grand Canyon, Arizona(5); Gila Wilderness Area, New Mexico(9). Backpacked to Keet Seel, Arizona and hiked. Chaco Canyon numerous times, Have extensively visited archaeological sites in the U.S. Southwest, Mexico, Belize, Guatemala, France, Canada, Greece, Italy, India, Nepal, China, Tibet, Laos, Cambodia, Korea, Ecuador, Peru, Egypt, Jordan, Myanmar, Thailand, Czech Republic, Romania, Croatia, and Morocco.

REFFERENCES

Dr. William Walker, Professor
Department of Anthropology, Box 3BV
New Mexico State University
Las Cruces, NM 88003
Phone: (575) 656-7006
E-Mail: wiwalker@nmsu.edu

Dr. James M. Skibo, Professor
Sociology and Anthropology Dept.
Illinois State University
Normal, IL 61790-4640
Phone (309) 438-7397

Dr. **Susan Ryan,** Research Archaeologist and Field Director
Crow Canyon Archaeological Center
23390 Road K, Cortez, CO 81321
Phone: (970) 565-8975
E-mail: sryan@crowcanyon.org

E-Mail: jmskibo@ilstu.edu

Dr. E. Charles Adams,
Arizona State Museum/School of
Anthropology, University of Arizona
Tucson, AZ 85721
Phone: (520) 982 4108
E-mail: ecadams@email.arizona.edu

ENGINEERING ACADEMIC EXPERIENCE:

Transilvania University of Brasov, Dept. of Electrical Engineering and Computer Science, Visiting Lecturer, Oct. 1, 2009-Oct. 31, 2009). (Brasov, Romania)

University of Maribor, Department of Electrical Engineering and Computer Science, Visiting Professor, April 1, 2008-June 11, 2008. (Maribor, Slovenia)

University of West Bohemia (Zapadoceska Univerzita VPlzni), Katedra Kybernetiky, Visiting Lecturer, March 15, 2007-May 11, 2007. (Plzen, Czech Republic)

Nanjing University of Science & Technology, Computer Science Department, Visiting Professor, Oct-Dec 2005. (Nanjing, Republic of China).

Chiang Mai University, Electrical Engineering Department, Visiting Professor Oct 15, 2003 – March 8, 2004 (Chiang Mai, Thailand)

New Mexico State University, Department of Sociology and Anthropology, Instructor Jan-April 2003 (Las Cruces, NM)

New Mexico State University, Department of Electrical and Computer Engineering, Professor Emeritus: 1993-Present, Professor: 1980-1993, Associate Professor: 1972-1980, Assistant Professor, 1968-1972.Sabbaticals: July 1975-July 1976; Aug. 1984-Jan.1985.

Indian Institute of Science, Electrical Engineering Department, Visiting Professor, Dec 31, 2000 - May 1, 2001 (Bangalore, India).

South Dakota School of Mines and Technology, Department of Electrical and Computer Engineering, Associate Professor, August 16, 1998-May 17, 1999 (Rapid City, SD).

Kwangju Institute of Science & Technology, Dept. of Information and Communications, Professor, Mar. 1996-July 1996, Mar. 1997-June 1997 (Kwangju, Republic of Korea).

Aristotle University of Thessaloniki, Department of Electrical Engineering, **Fulbright Scholar**, Lecturing and Research, Sept. 12, 1993-Dec. 15, 1993 **(**Thessaloniki, Greece)

Clemson University, Department of Electrical and Computer Engineering, Visiting Professor, Jan. 1985-June 1985. Taught undergraduate courses in signals and systems and a graduate course in Digital Signal Processing.

Centre d'Etude des Pheonmenes Aleatoires et Geophysiques (CEPHAG) Institut National Polytechnique de Grenoble, France, Visiting Researcher, Aug.-Jan., 1985, June-Aug. 1985. (Grenoble, France).

Duke University, Department of Biomedical Engineering, Post-doctoral Fellowship on a NIH Training Grant, August 1975-July 1976. Grant Summer 1990. NSF Grant Summer 1991 (Durham, NC).

Arizona State University, Department of Electrical Engineering, Instructor 1967-68. Faculty Associate, 1964-1967, (Tempe, Arizona).

South Dakota School of Mines and Technology, Dept. of Electrical and Computer Engineering, Graduate Assistant, Fall and Spring 1963, (Rapid City, SD).

MAJOR PROFESSIONAL ENGINEERING COMMITTEE INVOLVEMENT

Publications Chairman, 1990 International Conference on Acoustics, Speech and Signal Processing (Authors Kit, Advance Program, Conference Guide, and Conference Proceedings). 2500Attendees.

Publications Chairman, 1999 Midwest Symposium on Circuits and Systems Authors Kit, Advance Program, Conference Guide,

Reviewer, International Conference on Intelligent Technologies, InTech2003, InTech 2008.

ENGINEERING PROFESSIONAL RESEARCH EXPERIENCE:

Naval Undersea Warfare Engineering Station, Keyport, Washington Summers 1990, '88, '87, and '86, Grants. Summer 1981.

Rome Air Development Center, Griffis AFB, New York, Summer 1984, Fellow in the USAF- SCEEE Summer Faculty Research Program.

0A0 Corporation, White Sands Missile Range, N.M., Summer 1982, Consultant.

Naval Undersea Warfare Engineering Station, Keyport, Washington, Summer 1981, Electrical Engineer.

Rome Air Development Center, Griffis AFB, New York, Summer 1980, Fellow in the USAF- SCEEE Summer Faculty Research Program

U.S. Army Atmospheric Sciences Laboratory, White Sands Missile Range, New Mexico, Summers 1979, 1978, Consultant under the Scientific Services Program.

Missile Electronic Warfare Technical Area, White Sands Missile Range, New Mexico, Summer 1971, advisor under U. S. Army Research Office-Durham. December 1971-January 1975 Research Grants under U.S. Army Research Office-Durham.

NASA/ASEE Manned Spacecraft Center, Houston, Texas, Summer 1970, Engineering Systems Design Institute Fellow.

Harry Diamond Laboratories, Washington, D.C., Summer 1969, Consultant under U.S. ArmyResearch Office-Durham

ENGINEERING RESEARCH GRANTS:

I have been awarded over 15 research grants from NSF, U.S. Army Research Office - Durham, USAF Office of Scientific Research, National Institute of Health, Duke University NSF/ERC, Naval Undersea Warfare Engineering Station (NUWES), and the Southeastern Center for Electrical Engineering Education (SCEEE).

CHAIRMAN AND PH.D. DISSERTATION ADVISOR FOR THE FOLLOWING STUDENTS

Dudley Cade Lancaaster (1970), Ching-Quo Ho (1970), Pierre M. Bretault (1972), Mohammad Maqusi(1972), Michael Hankamer (1977), Sheila Beth Horan (1985), Ralph Dieter Hippenstiel (1985), Paul Benjamin Crilly (1987), Miguel Angel Mayorga (1987), Ahmed Aly Nashat (1990), Roman Antosik (1990), Erik Chowdhury (1995), Rouzbeh Tehrani (1995), Jeong-Hee Kim (2000), Kyung-Sik Seo (2004) . (Graduation Date) Chairman and Advisor for over 30 M.S. Students

TV INSTRUCTION:

Taught two courses by Video Conferencing for South Dakota School of Mines & Technology (1999). Taught course on Pattern Recognition on TV for the National Technological University (NTU). Taught over 10 TV Courses on Digital Signal Processing, Random processes, and Pattern Recognition for Kirtland AFB, Holloman AFB, RCA-Mexico, WSMR, & Raytheon.

ELECTRICAL AND COMPUTER ENGINEERING PAPERS PUBLISHED:

"Efficient Liver Segmentation Based on the Spine" with Kyung-Sik Seo, Seung-Jin Park, and Jong-An Park, ADVIS 2004, Third Biennial International Conference on Advances in Information Systems, Oct 20-22, 2004, Izmir, Turkey

"LCLNET: A Feedforward Neural Net Trainer", International Conference on Signal Processing Applications & Technology, Oct. 7-10, 1996.

"Use of Blood Pulse Signature for Identity Verification",with Mario I. Chacon M., International Conference on Signal Processing Applications & Technology, Oct. 7-10, 1996, Boston, MA.

"Blind Identification of Instantaneous Nonlinear Polynomial Systems", 1995 IEEE Workshop on Nonlinear Signal and Image Processing, June 20-22, 1995, Halkidiki, Greece.

"Discrimination of Cardiac Arrhythmia Using a Fuzzy Rule-Based Method", with Erik Chowdhury, Computers in Cardiology, Bethesda, Maryland, September 24-28, 1994.

"Shift and Rotation Invariant Texture Recognition with Neural Nets", with Miguel A. Mayorga, IEEE World Congress on Computational Intelligence, June 26 - July 2, 1994).

"Signal Processing Using the Generalized Taylor Series Expansion", with Rouzbeh Tehrani, Twenty-Seventh Annual Asilomar Conference on Signals, Systems and Computers, Nov. 1-3, 1993.

"Blind Nonlinear System Identification During Ventricular Fibrillation", Twelfth Southern Biomedical Engineering Conference, New Orleans, La., April 2-4, 1993.

"Small Sample Maximum Likelihood Estimation of the Dose-Response Success Curve", Computers in Cardiology, October 11-15, 1992.

"Use of Generalized Taylor Series Expansion", with Rouzbeh Tehrani, 1992 IEEE International Symposium on Circuits and Systems, May 10-13, 1992.

"Detection and Estimation of Chirp Signals Using State Space Representation", with Ahmed Nashat, 1992 IEEE International Symposium on Circuits and Systems, May 10-13, 1992.

"Detection Of Ventricular Fibrillation from Multiple Sensors", with Stephanie A. Lindsley, SPIE's International Exhibition on Optical Engineering and Photonics, April 20-24, 1992.

"Tailored Orthonormal Sets for Expansion of Specific Classes of Functions", Proceedings of the 1992 ICASSP, March 23-26, 1992, pp. V37-40.

"Neural Nets for Determination of Texture and its Orientation", with Miguel Mayorga, Proceedings of the 1991 International Conference on Acoustics, Speech and Signal Processing, May 14-17, 1991.

"Nonlinear Formulas for Interpolation, Extrapolation, and Estimation of Single and Multiple Sinusoids in Noise", 1990 ICASSP, April 2-5, 1990.

"Cross-talk and Self-echo Cancellation by Adaptive Filters for Pseudo-passive Artificial Targets", December 1989, Applied Research Technical Note 90- , NUWES, Keyport, Washington.

"Manual for MUSTIG Software", September 1989, Rewriting of a French Translation of a Manual to accompany a Software Package for system modeling for Dr. Gerard Lejeune, CEPHAG, France.

"Nonlinear Frequency and Magnitude Estimators for Single and Multiple Sinusoids in Noise", August 1987, Applied Research Technical Note 87-9, Naval Undersea Warfare Engineering Station, Keyport, Washington.

"System Description of an Adaptive Self-echo and Crosstalk Canceler for a Towed Array Artificial Target," July 1987, Applied Research Technical Note 87-5, Naval Undersea Warfare Engr. Station.

"Improved Spectral Estimation Based on Extrapolated and Smoothed Data Records," with Miguel Mayorga, Proceedings of the 1987 International Conference on Acoustics, Speech, and Signal Processing (April 6-9, 1987).

"Suboptimum Extrapolation for Spectral Estimation" USAF-SCEEE SFRP Final Report, Aug. 15, 1984.

"Image Segmentation using Maximum Entropy", with Jay Jordan, Proceedings of the 1984 International Conference on Acoustics, Speech, and Signal Processing, March 19-21, 1984, pp. 32.4.1-32.4-4.

"Digital Signal Processing Tutorial," Proceedings of the Jordan-International Electrical and Electronic Engineering Conference (JIEEEC), pp. 267-273, April 25-28, 1983.

"Optimum Sampling Times for Spectral Estimation by Generalized Regression," Final Report Grant No. AFOSR-81-0140, April 30, 1982.

"Optimum Sampling Times for Estimation of Fourier Coefficients in Noise," 1981 International Conference on Acoustics, Speech, and Signal Processing, Conference Proceedings, March 30 & 31, April 1, 1981.

"Optimum Sampling times for Spectral Estimation," USAF-SCEE SFRP Final Report, September 1980.

"Multisignal Time Difference Estimator with Application to the Sound Ranging Problem," 1980 International Conference on Acoustics, Speech, and Signal Processing, Conference Proceedings, April 9, 10, 11, 1980.

"A Software Package for Estimating Time Differences for Artillery Sound Ranging Applications," Atmospheric Science Laboratory Report No. CR-79-0100-6, White Sands Missile Range (WSMR), New Mexico, November 1979.

"Bias and Variance of a Sound Ranging Estimator," proceedings of the Time Delay Estimation and Applications Conference, May 1, 1979.

"A Procedure for Obtaining More Accurate Timing Information for the Sound Ranging Problem, Atmospheric Sciences Laboratory Report No. ASL-CR-79-0100-1, February 1979.

"Estimation in the Presence of Random Probe Placement," Proceedings of the First International Conference on Mathematical Modeling, August 29, 1977, pp. 609-618.

"Nonlinear Systems Analysis Using Walsh Functions," Final Report National Science Foundation Grant No. GK-40672, March 30, 1976, 30p. (with Mohammad Maqusi, John Werth and Shun-Hon Chung).

"Use of Wave Period in Signal Detection," U.S. Government Accession No. ADA 015 711, July 1, 1975, 26p. (with Sun Hon Chung)

"Recursive and Moving Cubic Spline Interpolation Methods," U.S. Government Accession No. ADA 014 949, March 1, 1975, 10p.

"Error in Energy Spectrum Estimation Due to Quantization," U.S. Government Accession No. ADA 014 948, February 1975, 10p.

"Approximation Error in Estimation of Continuous Unknown Deterministic Signals in Noise from Discrete Samples," Proceedings of the IEEE Conference on Decision and Control, Nov. 20,1974.

"Analysis and Measurement of Pulse Width Densities," with Shun-Hon Chung, New Mexico State University Engineering Experiment Station Technical Report No. 85-74, February 1974.

"A Comparison of Approximation Techniques Used in Estimating a Deterministic continuous Waveform from Discrete Noisy Samples," United States Army Electronics Command Report No. ECOM 5616, October 1973.

"The Amplitude Densities of Single-Tone Amplitude-Modulated (AM) Waveforms," IEEE Transactions on Communications, COM-21, 860-862, July 1973.

"Waveform Analysis System Final Amplitude Analysis," with C. Klassen and E. Bergsagel, United States Army Electronics Command Report No. ECOM-5479-2, June 1973.

"An Adaptive Graduate Educational Techniques," IEEE Transactions on Education, Volume E-16, No. 1, 64, February 1973.

"Suboptimum Versus Matched Filters," with Bretault, Pierre M., Proceedings of the 1972 Canadian Communications and EHV Conference, November 9-10, 1972.

"Output Dyadic Correlation Functions of Instantaneous Nonlinear Devices," with Maqusi, Mohammad, Proceedings of the National Electronics Conference, October 9-11, 1972.

"Optimum Sample Rates for Data Estimation," Proceedings of the Tenth Annual Allerton Conference on Circuit and System Theory (1972), October 4-6, 1972.

"Chaff Simulation Analysis and Preliminary Design of Chaff Simulator," (U), with Rodriquez, R., and Larow, J.F., US Army Electronics Command Report No. ECOM-5464[SECRET], August 1972.

"Optimum Sample Rates for Data Estimation," MEWTA/EWL Tech. Memo No. 13-01, Aug. 1, 1972.

"A Hybrid Chaff Simulator" MEWTA/EWL Tech. Memo No. 12-17, June 15, 1972.

"The Amplitude Density of a Truncated Fourier Series," IEEE Transactions on Communications, COM-20, 483-486, June 1972.

"A Relationship Between the Fourier Series Coefficients and the Amplitude Density Function of a Periodic Signal," Proceedings of the 1972 Midwest Circuit Symposium, May 5, 1972.

"Amplitude Density of Distortion of an Amplitude Modulated Waveform by a Dispersive Delay Line," Missile Electronic Warfare Technical Area (MEWTA/EWL) Technical Memorandum No. 12-07, December 1, 1971.

"Statistical Analysis of ECM/ECCM Signals and Techniques," United States Army Electronics Command Report No. ECOM-5418, November 1971.