



Ali S. Hadi, Ph.D., Fellow ASA (1997),
Distinguished University Professor and Chair,
Department of Mathematics and Actuarial Science
Founder of the Data Science Program at AUC (2019)
Founder of the Actuarial Science Program at AUC (2004)
Former Vice Provost, The American University in Cairo
E-mail:ahadi@aucegypt.edu Web:www1.aucegypt.edu/faculty/hadi
Mail: AUC, P. O. Box 74, New Cairo 11835, Egypt
Telephones: Office (+20-2615-2646) Mobile (+2-010000-77512)
Stephen H. Weiss Presidential Fellow and Professor Emeritus
Cornell University, 291 Ives Hall, Ithaca, NY 14853-3901, USA
ali-hadi@cornell.edu

Google Scholar's Page: <http://scholar.google.com/eg/citations?user=-8xAh5IAAAAJ&hl=en>

Education: **New York University (USA):**
Ph.D. (With Honors) Statistics, May 1984
Master of Philosophy, Statistics, May 1982
Master of Science, Statistics, May 1980
 Major: Statistics and Operations Research
 Minor: Computer Applications and Information Systems

Ain Shams University (Cairo, Egypt)
 Bachelor of Accounting, May 1972

Citizenship: Egyptian/American

Honors and Awards:

1. **2018:** Member of the Egyptian National Committee for Mathematics, Academy of Scientific Research & Technology (Egypt).
2. **2011:** Elected President of ISOSS (The Islamic Countries Society of Statistical Sciences)
3. **2010:** First recipient of the Distinguished University Professorship, The American University in Cairo
4. **2010:** Received the President's Distinguished Service Award, The American University in Cairo
5. **2009:** Elected Editor-in-Chief of the International Statistical Review, the flagship journal of the International Statistical Institute.
6. **2007:** Received the Excellence in Research and Creative Endeavor Award, the American University in Cairo.
7. **2001:** The paper "Some Applications of Functional Networks in Statistics and Engineering" received the "2001 Technometrics Invited Paper Award" and was presented as such at the 2001 Joint Annual Meetings of five statistical societies.
8. **2000:** Who's Who Among America's Teachers.
9. **1998:** Named the Stephen H. Weiss Presidential Fellow, Cornell University.
10. **1998:** Elected Member of the International Statistical Institute.
11. **1997:** Elected Fellow of the American Statistical Association.
12. **1997:** The Schering-Plough Award for Exemplary Teaching, School of Industrial and labor Relations, Cornell University.
13. **1993:** Outstanding Educator Award for having most influenced a Merrill Presidential Scholar, Cornell University.

14. **1992:** One of two university-wide faculty who received the Amoco Foundation Faculty Award in recognition of demonstrated superior teaching skills over a period of several years, Cornell University.
15. **1991:** Elected as an honorary member of the Golden Key National Honors Society in recognition of dedication and commitment to teaching.
16. **1984:** The Herman E. Krooss Award: Given to Ph.D. graduate who has completed the course of studies with distinction and has presented an outstanding doctoral dissertation.
17. **1983:** The Institute of Management Sciences, Metropolitan New York Chapter's Outstanding Achievements Award.
18. **1972:** Dr. Abou Bakr Hussien Award for the top ranking undergraduate student in Statistics, Ain Shams University.

Academic Appointments:

AUC: Department of Mathematics and Actuarial Science,
AUC Avenue, P. O. Box 74, New Cairo 11835, Egypt
2012-present: Chair, Department of Mathematics and Actuarial Science
2010-present: Distinguished University Professor
2006-2010: Vice Provost and Director of Graduate Studies and Research
2000-present: Professor, Department of Mathematics and Actuarial Science

Cornell University: Department of Social Statistics, Cornell University, Ithaca, USA

2002-present Emeritus Professor
1996-2002 Professor
1994-1998 Department Chair
1990-1996 Associate Professor
1984-1990 Assistant Professor

NY University: Department of Statistics and Operations Research, Stern School of Business,
44 West 4th Street, New York, NY 10012-1126

1983-1984 Instructor
1980-1983 Research Assistant

Short-Term Appointments:

1998-2006 **Visiting Professor** (During the month of January of each year)
Statistics Group, Neuchâtel University, Switzerland

Spring1999 **Visiting Professor**
School of Engineering, University of Castilla La Mancha, Spain

Fall1998 **Distinguished Visiting Professor**
School of Sciences and Engineering, American University in Cairo

Spring1994 **Visiting Professor**
School of Social Sciences and the Law, University of Carlos III de Madrid,
Spain

1993-1994 **Visiting Professor**
Department of Applied Mathematics, School of Civil Engineering, University
of Cantabria, Spain

Summer1991 **Visiting Professor**
Department of Statistics, University of Umea, Sweden

March1991 **Distinguished Visiting Professor**
Department of Mathematical Sciences, Clemson University, USA

Summer1985 **Visiting Assistant Professor**
Department of Statistics and Operations Research, New York University, USA

Administrative Experience:

- **Founder of the Data Science Program** (2019), Director (2019–Present)
Department of Mathematics and Actuarial Science, the American University in Cairo
- **Founder of Actuarial Science Program** (2004), Director (2004–2012)
Department of Mathematics and Actuarial Science, the American University in Cairo
- **Acting Chair (Spring and Summer 2014):** Department of Petroleum and Energy Engineering, American University in Cairo
- **Department Chair (2012 to present):** Department of Mathematics and Actuarial Science, The American University in Cairo
- **Vice Provost and Director of Graduate Studies and Research** (2006–2010)
The American University in Cairo
- **Department Chair** (1994–1998): Department of Social Statistics, Cornell University, USA
- **Committees:** Served on several departmental, school and university-wide ad hoc and standing committees at both Cornell University (1984–2002) and the American University in Cairo (2000–present).

Industry Experience:

- **Chair, Risk and Audit Committee**, Egyptian Universal Health Insurance Authority, (2019–Present)
- **Chair, Governance and Compliance Committee**, Misr Insurance Company, (2019)
- **Member**, Knowledge Index Advisory Board, UNDP and Mohammed bin Rashid Al Maktoum Foundation, (October 2017–January 2018)
- **Member, Institutional Research Board**, Children Cancer Hospital Egypt, (2016–2018)
- **Chair, Enterprise Risk Management Committee**, Misr Insurance Company, (2014–2016)
- **Board Member**, Suez Canal Company for Technology Settling (SCTS) (2013–2016)
- **Member, Board of Directors**, African School of Economics (ASE), Cotonou, Benin, (2012–2015)
- **Chair, Audit Committee**, Misr Insurance Company, (2011–2019)
- **Board Member**, Misr Insurance Company (2007–2019)
- **Member, Audit Committee**, Misr Real Estate Investment Company, (2010–2011)
- **Member, Audit Committee**, Misr Life Insurance Company, (2010–2011)
- **Chief Statistician**, United Nations Arab Human Development Report, (2010–2012)
- **Member**, European Core Funding Group Review Committee, Palestine Central Bureau of Statistics, (2011)
- **Council Member, Ibrahim Index of African Governance**, Mo Ibrahim Foundation (2009–Present)
- **Technical Committee Member, Ibrahim Index of African Governance**, Mo Ibrahim Foundation (2009–Present)
- **Board Member, Al Baraka Bank**, Egypt (formerly Saudi-Egyptian Finance Bank) (2009–2012 and 2013–2016)
- **Member, Human Resources Committee**, Al Baraka Bank, Egypt (formerly Saudi-Egyptian Finance Bank) (2009–2012)
- **Board Member, Egypt-RE** (2006–2007)
- **Chef/Manager:** French/Continental restaurants in New York, (1975–80).
- **Customs Officer:** Customs Administration, Cairo International Airport, Cairo, Egypt, (1972–1975).

Research Areas:

Data Science, Visualization of massive hyperdimensional Data (Big Data); Statistical computing and graphics; Classification and Clustering; Robust statistics and outlier detection; Linear and nonlinear models; Multivariate analysis; Parameter and quantile estimation; Extreme values theory, Fatigue of Engineering Materials and Structures; Expert systems; Uncertainty in artificial intelligence; Bayesian, Markov, and Neural network models; Environmetrics, Matrix algebra, and Simulation.

Courses Taught:

Introductory Statistics, Probability Theory, Mathematical Statistics, Financial Econometrics, Regression Analysis, Advanced Topics in Regression, Multivariate Analysis, Graphical Methods for Data Analysis, Matrix Algebra, Calculus and Analytic Geometry, Operations Research, and Expert Systems and Probabilistic Network Models.

Students Supervised:

- **Cairo University, Egypt:** Served as a supervisor for the following graduate students:
 - Ayman Taha, Ph.D.
 - Eman Refaat, M.Sc.
 - Hala Sobeih, M.Sc.
 - Mona Nazih Abdel-Bary, Ph.D.
 - Amal Sakr, Ph.D.

- **Cornell University, USA:** Served as an advisor for the following graduate students:
 - Ahmed Alzahrani, M.Sc.
 - Emad El-Sebakhy, Ph.D.
 - Sahar El-Sheneity, Ph.D.
 - Brian Jersky, Ph.D.
 - Hyeseon Joo, M.Sc.
 - Pascale Voldman, M.Sc.

- **Cornell University, USA:** Served as a Committee member for the following graduate students:
 - Hassan Abu-Libdeh, Ph.D.
 - Richard Cleary, Ph.D.
 - Mary Dowling, Ph.D.
 - Jody Enk, M.Sc.
 - Diane Johnson, Ph.D.
 - Douglas Morrice, Ph.D.
 - Patricia Moy, M.Sc.
 - Jong Reem, Ph.D.
 - Gad Saad, Ph.D.
 - John Walker, Ph.D.
 - Yoshio Yanadori, M.Sc.

- **Neuchâtel University, Switzerland:** Served as an advisor for the following Master of Science degree students:
 - Cédric Beguin, M.Sc.
 - Khmais Hedhehli, M.Sc.

- **Other Universities:**

Served as an external examiner for the following M.Sc./Ph.D. candidates:

- Fatma Farag, Ph.D., Faculty of Economics and Political Science, April 2019
- Thuraya El-Sayed Ramadan, Ph.D., Faculty of Economics and Political Science, July 2017
- Nesma Ali Mahmoud Saleh, Ph.D., Faculty of Economics and Political Science, July 2016
- Heba Moustafa Ezzat, Ph.D., Faculty of Economics and Political Science, July 2016
- Moustafa Mohamed Ahmed Ali Salem, M.Sc., Faculty of Commerce, Alexandria University, June 2016
- Walaa Akram Anwar, M.Sc., Faculty of Computer and Information, Cairo University, 2014
- Sara Alaa Yones, M.Sc., Faculty of Computer and Information, Cairo University, 2014
- Aida Calviño, School of Engineering, Ph.D., University of Cantabria, Spain, 2013
- Eman Mohamed Mostafa Abdel-Azim, M.Sc., Faculty of Economics and Political Science, Cairo University, 2012
- Md. Amirul Islam, Ph.D., Department of Statistics, Rajshahi University, Bangladesh, 2012
- Ahmed Said Hefny, M.Sc., Faculty of Engineering, Cairo University, 2010
- Athanassios Kondylis, M.Dc., Neuchâtel University, Switzerland, 2006
- Mohamed Hussian, Ph.D., Linkoping University, Sweden, 2005
- Habshah Midi, Ph.D., University of Kebangsaan, Malaysia, 1995
- Tarit Kanti Saha, M.Sc., McMaster University, Canada, 1995
- J. M. Gutiérrez, Ph.D., University of Cantabria, Spain, 1994

Professional Service Activities:

- Elected Fellow of the American Statistical Association,
- Elected Member of the International Statistical Institute,
- Fellow of the Royal Statistical Society, and Member of the Institute of Mathematical Statistics, the Egyptian Mathematical Society, the American Association for Artificial Intelligence, the International Association for Statistical Computing, the Association of Computing Machinery, and the International Environmetrics Society.
- President, the Islamic Countries Society of Statistical Science (ISOSS), (2011–2014).
- President-Elect, the Islamic Countries Society of Statistical Science (ISOSS), (2009–2011).
- Member of the Elections Committee, the International Statistical Institute (2010–2013).
- Editor-In-Chief, International Statistical Review, Journal of the International Statistical Institute (2009–2010).
- Editor-In-Chief, A special issue of the International Journal of Statistical Sciences (2004–2007).
- Associate Editor, TEST: The Spanish Journal of Statistics, (2002–2005).
- Co-founding Editor, Journal of Economic and Social Research, (1998–2015).
- Editor, TIES Newsletter of the International Environmetrics Society, (1996–2000).
- Associate Editor, Journal of the International Environmetrics Society, (1992–2008).
- Associate Editor, Benchmarking for Quality Management and Technology, (1993–2005).
- Associate Editor, Journal of Statistical Studies, (1993–2004).
- Elected member of the Board of Directors, the International Environmetrics Society, (1999–2000).
- Elected member of the Board on the International Association for Statistical Computing, (1997–2000).

- Advisory Editorial Board member for ERC Press, (1992–2000).
 - Panel member, the United States Environmental Protection Agency, 1996 and 1998.
 - Chair of the Statistical Computing Session on “Desktop Computers and Data Analysis” at the Joint Annual Statistical Meetings, Anaheim, CA, August 1990.
 - Prepublication book reviews for several publishers. Reviewed grant proposals for the National Science Foundation. Reviewed numerous manuscripts for the following professional journals: Journal of the American Statistical Association, The Annals of Statistics, Journal of Business & Economic Statistics, Sankhya, Journal of Econometrics, Journal of Computational Statistics & Data Analysis, Biometrics, Technometrics, Communications in Statistics, Journal of Environmetrics, Journal of Official Statistics, Journal of Statistical Computation and Simulation, Journal of Applied Statistical Sciences, Mathematical Geology.
 - Chair of the Statistical Computing Session on “The Analysis of Variance” at the Joint Annual Statistical Meetings, San Francisco, CA, August 1987.
-

Invited Talks, Seminars, and Conference Presentations:

- April 2018 Invited speaker “Visualization of High-Dimensional Big Data,” Second International Conference on Mathematics and Its Applications (ICMA18), Academy of Scientific Research & Technology, National Committee on International Mathematics Union, Misr University for Science and Technology.
- April 2018 Invited speaker “Statistics, Computer Science, and Data Science: Knowing the Difference Makes a Difference,” The 30th Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- December 2017 “Multi-Class Data Exploration Using Space Transformed Visualization Plots,” presented at the Big Data Science Workshop, National Technology Institute, Cairo, Egypt.
- July 2017 “Identification of Outliers in Spatial Data,” presented at the 61st ISI *World Statistics Congress*, Marrakech, Morocco.
- July 2017 “Big Data: Many Challenges and Some Solutions,” presented at the 61st ISI *World Statistics Congress*, Marrakech, Morocco.
- February 2016 Invited speaker “Graphing Big Data,” The Fifth International Conference on Mathematics and Information Science”, Zewail University, Giza, Egypt.
- April 2015 Keynote speaker “Measuring Association between Categorical and Mixed Data with Application to Cancer Data,” The International Conference on Bioinformatics and Biostatistics Applications in Cancer Genomics Research, Doha, Qatar.
- August 2013 Invited Panel Discussion “The Arab Spring: Past, Present, and Future” Afrobarometer Network Conference on Democracy and Governance in Africa, Abomey-Calvi, Benin.

- March 2013 Invited Lecture “Visualization of Big Data” Department of Applied Mathematics, School of Engineering, University of Cantabria, Spain.
- October 2012 Invited Lecture “Seeing Beyond Three Dimensions,” Faculty of Science, Bani Swief University.
- December 2011 Keynote speaker “Multi-Class Data Exploration Using Space Transformed Visualization Plots,” The Eleventh Biennial Islamic Countries Conference of Statistical Science, Lahore, Pakistan.
- October 2011 Invited speaker “Quality Assurance of Education at the Public Egyptian Universities: Some Challenges and Suggestions for Improvement,” MENA-AIR Third Annual Conference, The American University in Cairo.
- September 2011 Keynote speaker “Multi-Class Data Exploration Using Space Transformed Visualization Plots,” The Pyrenees International Workshop and Summer School on Probability, Statistics, and Operations Research, Jaca, Huesca, Spain.
- July 2011 Invited to give the following four lectures at the MAT-TRIAD, Tomar, Portugal:
- “Matrices Useful for Graph Theory and Expert Systems”,
 - “Interesting Applications of Eigen Values and Eigen Vectors”,
 - “Regularization of Ill-Posed Systems”,
 - “Preprocessing the Rows of Multivariate Data Grossly Distorts Their Graphical and Correlation Structures”.
- March 2011 Keynote speaker “A New Measure of Association of Nominal Variables,” The 22nd Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- March 2011 Keynote speaker “Multi-Class Data Exploration Using Space Transformed Visualization Plots,” International Conference on Challenges in Statistics and Operations Research, Kuwait University, Kuwait.
- December 2010 Presented an invited talk on “The Effects of Centering and Scaling the Rows of Multidimensional Data on Their Graphical and Correlation Structures”, First International Conference on Theory and Application of Statistics, Dhaka, Bangladesh.
- December 2010 “Preprocessing the Rows of Multivariate Data Grossly Distorts Their Graphical and Correlation Structures”, The first Conference of the Al-Khawarezmi Committee of the International Statistical Institute (ISI), Doha, Qatar.
- September 2010 Presented the Provost’s Lecture on “Visualizing Data Beyond Three Dimensions: An Introduction to the Visualization of Massive, High-Dimensional Data”, The American University in Cairo

- March 2010 “A Method for Regularization of Ill-Posed Systems,” The First International Conference on Mathematics and Statistics, the American University of Sharja, UAE.
- March 2010 Keynote speaker “On the Visualization of Massive Hyperdimensional Data,” The First International Conference on Mathematics and Statistics, the American University of Sharja, UAE.
- March 2010 Keynote speaker “Two Graphs for the Visualization of Massive Hyperdimensional Data,” The 21st Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- February 2009 “Parameter Estimation in Linear and Nonlinear Models with General Heteroscedastic Structure” presented at the XXXI National Conference of Statistics and Operations Research, Murcia, Spain.
- November 2008 Presented an Invited talk, “Modeling Fatigue and Fracture of Engineering Materials and Structures” at the International Computational Material Science Workshop, Department of Physics, The American University in Cairo.
- March 2008 Presented an Invited Lecture, “Robust Regularized Regression Estimators” at the 20th Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- January 2008 Presented an Invited talk, “Graduate Education at the Egyptian Universities: Some Challenges and Suggestions for Improvement” at a Workshop by The 9th of March Group, Cairo University.
- December 2007 Presented a Keynote talk, “Extracting Knowledge from Very Large Data: Some Challenges and Opportunities,” at the 6th Knowledge, Economy & Management Congress, Istanbul, Turkey.
- December 2007 Presented a Keynote talk, “Sensitivity Analysis in Estimation Problems,” at the IX Meeting of the Islamic Countries Society of Statistical Sciences, Kuala Lumpur, Malaysia.
- October 2007 Presented a Keynote talk, “Visualization of Massive, Hyperdimensional Data: The L1-L2 Plot,” at the University of Seville, Spain.
- May 2007 Presented an Invited talk, “Sensitivity Analysis in Estimation Problems,” at the Conference on the Occasion of the Retirement of Mir Masoom Ali, Ball State University, USA.
- April 2007 Presented a Keynote talk, “Modeling and Analysis of Extreme Events,” at the Third International Conference on Research and Education in Mathematics, Kuala Lumpur, Malaysia.
- February 2007 Presented an Invited Lecture, “Data Analyses in Hospitality Industry: Challenges and Opportunities,” at the Data Mining and Computer Modeling

- Center of Excellence, Ministry of Communications and Information Technology, Cairo, Egypt.
- February 2007 Presented an Invited Lecture, “On the Expectation Maximization (EM) Algorithm,” at the Cornell Hotel Society Annual European Regional Meeting, Cairo, Egypt.
- December 2006 Presented an Invited Lecture, “On the Visualization of Massive, Hyperdimensional Data” Department of Statistics, Rajshahi University, Bangladesh.
- December 2006 Presented an Invited Lecture, “The Use and Abuse of Statistical Data Analyses in Scientific Research,” Faculty of Commerce, Assuit University.
- June 2006 Presented an Invited Lecture, “On the Visualization of Massive, Hyperdimensional Data” International Conference on Mathematical and Statistical Modelling in Honor of Enrique Castillo, Ciudad Real, Spain.
- April 2005 “Local Sensitivity Analysis in Estimation Problems” presented at the Fourth International Symposium on Business and Industrial Statistics, in Palm Cove, Tropical North Queensland, Australia.
- March 2005 Presented an Invited Lecture, “Sensitivity Analysis in Estimation Problems” at the Seventeenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- January 2005 Presented an Invited Lecture, “Modeling and Analysis of Extreme Events,” Department of Statistics, University of Neuchâtel
- June 2004 “Sensitivity Analysis in Reliability Based Optimization Design,” presented at the Fourth International Conference on Mathematical Methods in Reliability, in Santa Fe, New Mexico.
- March 2004 Presented an Invited Lecture, “On the Specification of Very Large, Complex Probabilistic Models” at the Sixteenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- December 2003 Presented an Invited Lecture on “Modeling Extreme Events Data” at the 38th Annual Conference on Statistics, Computer Science, and Operations Research, Cairo University.
- April 2003 Presented an Invited Lecture on “Recent Methods for the Detection of Unusual Observations in Statistical Data” at the Department of Applied Mathematics, School of Engineering, Cantabria University, Spain.
- March 2003 Presented an Invited Lecture on “Bayesian Network Models and Their Applications” at the Fifteenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.

- November 2002 Presented an Invited Lecture on “Some Applications of Functional Networks in Statistics and Engineering” at the Fourteenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences, Cairo University.
- August 2001 Presented the “2001 Technometrics Invited Paper” at the 2001 Joint Annual Meetings of five statistical.
- February 2001 “An Elemental Percentile Method for Estimating Parameters and Quantiles of Continuous Distributions of Random Variables” presented at the Department of Statistics, Faculty of Economics and Political Sciences, Cairo University.
- August 2000 Presented an Invited Lecture at the Annual Meeting of The American Statistical Association, Indianapolis, Indiana.
- August 1999 Presented a Special Invited Lecture at the Annual Meeting of the International Environmetrics Society, Athens, Greece.
- March 1999 Presented four lectures on Robust Regression Diagnostics at the Department of Mathematics, Statistics, and Operations Research, La Laguna University, Tenerife, Canary Islands, Spain.
- February 1999 Presented three public lectures at the Department of Mathematics, Cukurova University, Adana, Turkey.
- Fall 1998 Presented three public lectures as a Distinguished Visiting Professor at the American University in Cairo.
- August 1997 “A More Robust Outlier Identifier for Regression Data,” presented at the International Statistical Institute's 51st Session, Istanbul, Turkey.
- August 1997 “Frechet Distance as a Diagnostic Tool for Diagnosing Elliptically Symmetric Multivariate Data,” presented at the Sixth International Workshop on “Matrix Methods for Statistics,” Istanbul, Turkey.
- August 1997 “Improving Search-Based Inference in Bayesian Networks: Application to the MAP Problem,” presented at the Eighth International Conference of The International Environmetrics Society, Innsbruck, Austria.
- August 1997 “A Tutorial Introduction to Expert Systems and Their Applications,” presented at the Eighth International Conference of the International Environmetrics Society, Innsbruck, Austria.
- December 1996 “Expert Systems and Uncertainty in Artificial Intelligence”, presented at the 31st Annual Conference on Statistics, Computer Science, and Operations Research, Cairo, Egypt.
- December 1996 Presented two seminars at the Faculty of Commerce, Ain Shams University, Cairo, Egypt.

- December 1996 “Outliers Detection in Multivariate and Regression Data” presented at the Department of Statistics, Faculty of Economics and Political Sciences, Cairo University.
- December 1996 Presented two seminars at the Department of Mathematics, Faculty of Science, Mansura University, Mansura, Egypt.
- September 1996 “Outlier Detection in Regression and Multivariate Data,” presented at the First NIU Symposium on Statistical Science, DeKalb, IL.
- August 1996 “Some Cautionary Notes on the Use of Principal Components Regression,” presented at the Joint Annual Statistical Meetings, Chicago, IL.
- July 1996 Invited by the University of Cantabria, Laredo, Spain to teach a short course on “Current Trends in Expert Systems and Network Models”
- February 1996 Presented five seminars at the Department of Statistics, La Laguna University, Tenerife, Canary Islands, Spain.
- December 1995 “Statistical Analysis of Extreme Wave Heights,” presented at the Sixth International Conference on Environmetrics sponsored by The International Environmetrics Society, Kuala Lumpur, Malaysia.
- November 1995 Presented two seminars at the Department of Statistics, Kuwait University.
- November 1995 “Point Estimation by Maximum Trimmed Likelihood,” International Conference on Pure and Applied Mathematics, Bahrain.
- March 1995 “Propagation of Uncertainty in Expert Systems,” presented at the Statistics Center, Cornell University.
- February 1995 “Modeling Fatigue Life-Time Data,” a colloquium presented at the Operations Research and Industrial Engineering, Cornell University.
- January 1995 “Point Estimation by Maximum Trimmed Likelihood,” presented at the Statistics Center, Cornell University.
- December 1994 A seminar on “Sensitivity Analysis in Statistics,” presented at the School of Engineering, University of Cantabria, Santander, Spain.
- August 1994 “A Method for Estimating Parameters and Quantiles of Continuous Distributions of Random Variables,” presented at the Joint Annual Statistical Meetings, Toronto.
- August 1994 “Parameter and Quantile Estimation for the Generalized Extreme-Value Distribution,” presented at the Fifth International Conference on Environmetrics sponsored by The International Environmetrics Society, Burlington, Ontario.

- June 1994 “Detection of Outliers in Biocybernetics and Biomedical Engineering Data,” presented at the Conference on Statistics and Clinical Practice, Warsaw, Poland.
- April 1994 A seminar on “An Overview and Recent Developments in Regression Diagnostics,” presented at the University of Valencia, Valencia Spain.
- March 1994 A seminar on “Identification of Outliers in Multivariate Samples,” presented at the Department of Statistics and Econometrics, Carlos III University of Madrid.
- August 1993 “Empirical Evaluations of Viable Methods for the Identification of Outliers in Multivariate Data,” presented at the International Statistical Institute's 49th Session, Florence, Italy.
- August 1992 “Procedures for the Identification of Multiple Outliers in Linear Models,” presented at the Fourth International Conference on Environmetrics sponsored by The International Environmetrics Society, Ispoo, Finland. Also presented at the Department of Mathematical Sciences, University of Tampere, Tampere, Finland.
- March 1992 The main speaker in the Umeå University Winter Conference, Kittelfjall, Sweden.
- December 1991 Presented three seminars at the Department of Statistics, King Saud University, Riyadh, Saudi Arabia, December 1991.
- June 1991 Presented three seminars during at the Department of Statistics, University of Umeå, Sweden.
- May 1991 A seminar on “An Afternoon Full of Diagnostics for Regression and Multivariate Data,” presented at the Department of Mathematical Sciences, University of Tampere, Finland.
- May 1991 A seminar on “A Statistical Analysis of Employment Discrimination Data,” presented at the School of Business Studies, University of Vaasa, Vaasa, Finland.
- March 1991 Presented one public lecture and two technical lectures as part of my Distinguished Visiting Professorship at the Department of Mathematical Sciences, Clemson University, Clemson, SC.
- February 1991 “Identifying Multiple Outliers in Multivariate Samples,” presented at the Statistics Center, Cornell University, Ithaca, NY. Also given at the Labor Economics Workshop, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, NY, April 1991.

- September 1990 “A New Measure of Overall Potential Influence in Linear Regression with Applications to Environmental Data,” presented at the Second International Conference on Environmetrics sponsored by The International Environmetrics Society, Como, Italy.
- August 1990 “A Stepwise Procedure for Identifying Multiple Outliers and Influential Observations in Regression,” presented at the Joint Annual Statistical Meetings, Anaheim, CA.
- August 1990 “The Kodiak Island King Crab Fishery: A Graphical and Analytical Data Analysis,” presented at the Joint Annual Statistical Meetings, Anaheim, CA.
- September 1989 “Two Graphical Displays for the Detection of Potentially Influential Subsets in Regression,” presented at the 47th Session of the International Statistical Institute, Paris, France.
- August 1989 “Reconciling Different Concepts of Fairness in Employment Decisions,” presented at the Joint Annual Statistical Meetings, Washington, D.C.
- April 1989 “On Generalized Wald's Test,” a seminar given at the Department of Statistics, Operations Research, and Actuarial Science, Stern School of Business, New York University, New York, NY.
- November 1988 “How Fair Can Employers Be?,” a seminar given at the Labor Economics Workshop, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, NY.
- August 1988 “Assessing the Effects of Multiple-Rows on the Condition Number of a Matrix,” presented at the Joint Annual Statistical Meetings, New Orleans, LA.
- August 1988 “Minimum Distance Method of Estimation and Testing When Statistics Have Limiting Singular Multivariate Normal Distribution,” presented at the Annual Meeting of the Institute of Mathematical Statistics, Fort Collins, CO.
- August 1987 “The Influence of a Single Row on the Eigen Structure of a Matrix,” presented at the Joint Annual Statistical Meetings, San Francisco, CA.
- April 1987 “Diagnosing Collinearity Influential Observations,” a seminar cosponsored by the Cornell Institute for Social and Economic Research, Ithaca, NY.
- August 1986 “The Prediction Matrix: Its Properties and Role in Data Analysis,” presented at the Joint Annual Statistical Meetings, Chicago, IL.
- April 1986 “Impact of Simultaneous Deletion of a Variable and an Observation on a Linear Regression Equation,” presented at the Fourth Sheffield Conference on Influential Data Analysis, University of Sheffield, Sheffield, England

Short Courses:

Invited to teach short courses on “*Sensitivity Analysis in Linear Regression*”, “*Modern Data Analysis*”, and “*Graphical Methods for Data Analysis*” by the following:

- The International Statistical Institute's 48th Session, Cairo, Egypt, 1991.
 - The Energy Information Agency, Washington, DC, 1989.
 - The Forty-Fourth Conference on Applied Statistics, American Society for Quality Control, Atlantic City, NJ, 1988.
 - The Thirty-Fourth Conference on the Design of Experiments, Las Cruces, NM, 1988.
-

Publications**a) Books:**

- Chatterjee, S. and Hadi, A. S. (2012), *Regression Analysis by Example*, (5th Edition), New York: John Wiley & Sons. ISBN: 978-0-470-90584-05. Translated to Chinese, Korean, and Persian.
- Castillo, E., Hadi, A. S., Balakrishnan, N., and Sarabia, J. M. (2005), *Extreme Value and Related Models with Applications in Engineering and Science*, New York: John Wiley & Sons. ISBN: 0-471-67172-X
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1997), *Expert Systems and Probabilistic Network Models*, New York: Springer-Verlag. Translated to Spanish and published by the Spanish Academy of Engineers. ISBN: 0-387-94858-9
- Hadi, A. S. (1996), *Matrix Algebra as a Tool*, Belmont, CA: Duxbury Press. ISBN: 0-534-23712-6
- Chatterjee, S. and Hadi, A. S. (1988), *Sensitivity Analysis in Linear Regression*, New York: John Wiley & Sons. ISBN: 0-471-82216-7

b) Edited Volumes:

- Amin, Z. and Hadi, A. S. (Editors), (2010), “Proceedings of the Tenth Islamic Countries Conference on Statistical Sciences ICCS-X, (Two Volumes), American University in Cairo.

c) Book Chapters:

- Minguez, R., Conejo, A. J., and Hadi, A. S., (2008), “Non-Gaussian State Estimation in Power Systems,” in *Advances in Mathematical and Statistical Modeling*, (B. C. Arnold, N. Balakrishnan, J. M. Sarabia, and R. Minguez, eds.), Birkhäuser Boston, Inc., 141–156.
- Castillo, E., Castillo, C., Hadi, A. S., and Sarabia, J. M. (2005), “Some New Methods for Local Sensitivity Analysis in Statistics,” in *Advances on Distribution Theory, Order Statistics and Inference*, in Honor of Barry C. Arnold, (N. Balakrishnan and E. Castillo, Eds.), Boston: Birkhäuser Boston, Inc., June 16–18.

- Castillo, E. and Hadi, A. S. (2000), “Some Probability Concepts for Engineers,” in *Handbook of Industrial Automations*, (E. L. Hall and R. L. Shell, Eds.), New York: Marcel Dekker, 1–32.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1998), “Algunas Aplicaciones de las Redes Bayesianas en Ingeniería,” in *Sistemas Expertos Probabilísticos* (I. R. Salavert, ed.), Universidad de Castilla-La Mancha, Spain, 265–301.
- Hadi, A. S., and Son, M. S. (1997), “Detection of Unusual Observations in Regression and Multivariate Data,” Chapter 13 in *Handbook of Applied Economic Statistics*, (A. Ullah and D. E. A. Giles, Eds.), New York: Marcel Dekker, 441–463.
- Hadi, A. S. (1993), “Graphical Methods for Linear Models,” Chapter 23 in *Handbook of Statistics: Computational Statistics*, (C. R. Rao, Ed.), Vol. 9, North-Holland Publishing Company, 775–802.

d) **Book Reviews:**

- Hadi, A. S. (2003), “A Review of *Building and Solving Mathematical Programming Models in Engineering and Science* by E. Castillo, A. J. Conejo, P. Pedrigal, R. Garcia, and N. Alguacil,” New York: John Wiley & Sons, *IIE Transactions*, 35, 918–919.
- Hadi, A. S. (1992), “A Review of *Finding Groups in Data: An Introduction to Cluster Analysis* by L. Kaufman and P. J. Rousseeuw, New York: John Wiley & Sons,” *Technometrics*, 34, 1, 111–112.

e) **Articles Published:**

- Touny, H. M., Moussa, A. S., and Hadi, A. S. (2020), “Fuzzy Multivariate Outliers with Application on the BACON Algorithm” IEEE World Congress on Computational Intelligence (IEEE WCCI 2020, Glasgo, UK).
- Taha, A. and Hadi, A.S. (2019), “Anomaly Detection for Categorical Data: A Review,” *ACM Computing Surveys*, Vol. 52, Issue 2, Article 38, 1–35.
<https://doi.org/10.1145/3312739>.
- Hadi, A. S. and Imon A. H. M. R. (2018) “Identification of Multiple Outliers in Spatial Data,” *International Journal of Statistical Sciences*, Vol 16, 87–96.
- Refaat, E. and Hadi, A. S., (2018), “Constructing Composite Indices: Some Lessons from Developing an Economic and Social Rights Fulfillment Index for Egypt,” *International Journal of Sociology and Social Policy*, Vol. 38, Issue: 1/2, 58–86
<https://doi.org/10.1108/IJSSP-12-2016-0135>.
- Hadi, A. S., and Imon R. A. H. M. (2017), “Identification of Outliers in Spatial Data,” *Bulletin of the International Statistical Institute*.

- Taha, A. and Hadi, A. S., (2016), “Pair-wise Association for Categorical and Mixed Attributes,” *Information Sciences*, Volume 346, 73–89.
DOI: <http://dx.doi.org/10.1016/j.ins.2016.01.022>
- Hadi, A. S., El Naggar, A. A., and Abdel Bary, M. N. (2016), “New Model and Method for Portfolios Selection,” *Applied Mathematical Sciences*, 10, 6, 263–288.
<http://dx.doi.org/10.12988/ams.2016.58541>
- Nurunnabi, A. A. M., Hadi, A. S., and Imon, A. H. M. R, (2014), “Procedures for the Identification of Multiple Influential Observations in Linear Regression,” *Journal of Applied Statistics*, 41, 1315–1331.
- Imon, R. and Hadi, A. S., (2013), “Identification of Multiple High-Leverage Points in Logistic Regression,” *Journal of Applied Statistics*, 40, 2601–2616.
- Mwitondi, K.S., Moustafa, R. E. and Hadi, A. S. (2013), “A Data-Driven Method for Selecting Optimal Models based on Graphical Visualization of Differences in Sequentially Fitted ROC Model Parameters,” *Data Science Journal* 12, WDS247–WDS253.
- Taha, A. and Hadi, A. S. (2013), “A General Approach for Automating Outliers Identification in Categorical Data,” *Proceedings of the 10th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2013), Fes, Morocco*, 1, 1–8.
- Kondylis, A., Hadi, A. S., and Werner, M. (2012), “The Bacon Approach for Rank-Deficient Data,” *Pakistan Journal of Statistics and Operation Research, Statistics in the Twenty-First Century: Special Volume in honor of Dr. Mir Masoom Ali on the Occasion of his Seventy-Fifth Birthday*, 8, 359–379.
- Castillo, E., Castillo, C. and Hadi, A. S. (2012), “Improving Parameter Estimation Using Constrained Optimization Methods,” *Journal of Statistical Computation and Simulation*, 83, 1471–1499.
- Moustafa, R. E., Hadi, A. S., and Symanzik, J. (2011), “Multi-Class Data Exploration Using Space Transformed Visualization Plots,” *Journal of Computational and Graphical Statistics*, 20, 298–315.
- Hadi, A. S. (2011), “Expert Systems,” in *International Encyclopedia of Statistical Science*, (Miodrag Lovric, Ed.), New York: Springer, Part 5, 480–482.
- Hadi, A. S. (2011), “Ridge and Surrogate Ridge Regressions,” in *International Encyclopedia of Statistical Science*, (Miodrag Lovric, Ed.), New York: Springer, Part 18, 1232–1234.
- Hadi, A. S., El Naggar, A. A., and Abdel Bary, M. N. (2010), “Two Proposals for Enhancing Global Optimal Portfolios,” *Proceedings of the 22nd Annual Conference on Statistics and Computer Modeling in Human and Social Sciences*, Cairo University, 28–53.
- Moustafa, R. E. and Hadi, A. S. (2010), “A Method for Regularization of Ill-Posed Systems,” *Proceedings of the First International Conference on Mathematics and Statistics*, American University of Sharja, UAE, 100383, AUS-ICMS’10-1–5.

- Amin, Z. and Hadi, A. S., (2010), "Fitting the Exponentiated Weibull Distribution to Failure Time Data," *Proceedings of the Tenth Islamic Countries Conference on Statistical Sciences ICCS-X*, Volume I, 424–450.
- Hadi, A. S., Imon, A. H. M. R., and Werner, M. (2009), "Detection of Outliers," *The Wiley Interdisciplinary Reviews: Computational Statistics*, 1, 57–70. Available online at <http://www3.interscience.wiley.com/journal/122511038/issue>
- Moustafa, R. E. and Hadi, A. S. (2009), "Grand Tour and Andrews Plot," *The Wiley Interdisciplinary Reviews: Computational Statistics*, 1, 245–250.
- Castillo, E., Hadi, A. S., and Minguéz, R. (2009), "Diagnostics for Nonlinear Regression," *Journal of Statistical Computation and Simulation*, 79, 1109–1128.
- Castillo, E., Castillo, C., Hadi, A. S., and Sarabia, J. M. (2009), "Combined Regression Models," *Computational Statistics*, 24, 37–66.
- Hadi, A. S. and Sakr, A. (2009), "A Boosted Approach for Bayesian Network Structure Learning," *Proceedings of the 21st Annual Conference on Statistics and Computer Modeling in Human and Social Sciences*, Cairo University, 138–157.
- Castillo, E., Castillo, C., Hadi, A. S., and Minguéz, R. (2008), "Duality and Local Sensitivity Analysis in Least Squares, Minimax, and Least Absolute Values," *Journal of Statistical Computations and Simulation*, 78, 887–909.
- Castillo, E., Castillo, C., Hadi, A. S., and Sarabia, J. M. (2008), "Local Sensitivity Analysis in Estimation Problems," *Journal of Computational and Graphical Statistics*, 17, 703–725.
- Imon, R. and Hadi, A. S., (2008), "Identification of Multiple Outliers in Logistic Regression," *Communications in Statistics – Theory and Methods*, 37, 1697–1709.
- Castillo, E., Castillo, C., and Hadi, A. S. (2008), "Sensitivity Analysis in Ordered and Restricted Parameter Models," *Journal of Statistical Planning and Inference*, 138, 1556–1576.
- Castillo, E., Fernández-Canteli, A., Hadi, A. S., and Lopez-Aenlle, M. (2007), "A Fatigue Model with Local Sensitivity Analysis," *Fatigue and Fracture of Engineering Materials and Structures*, 30: 149–168.
- Castillo, E., Hadi, A. S., Lacruz, B., and Pruneda, R. E., (2007), "Semi-Parametric Nonlinear Regression and Transformation Using Functional Networks," *Computational Statistics and Data Analysis*, 52, 2129–2157.
- El-Sebakhy, E. A.; Hadi, A. S.; Faisal, K. A. (2007), "Iterative Least Squares Functional Networks Classifiers," *IEEE Transactions on Neural Networks*, 18, 844–850.
- Kondylis, A. and Hadi, A. S. (2006), "Derived Components Regression Using the BACON Algorithm," *Computational Statistics and Data Analysis*, 51, 556–569.

- Billor, N., Chatterjee, S., and Hadi, A. S., (2006), "A Re-Weighted Least Squares Method for Robust Regression Estimation," *American Journal of Mathematical and Management Sciences*, 26, 229–252.
- Castillo, E. and Hadi, A. S. (2006), "Bayesian Networks," in *Encyclopedia of Statistical Sciences*, Second Edition, (Samuel Kotz, N. Balakrishnan, Campbell B. Read and Brani Vidakovic, eds.), 1, 425–435.
- Castillo, E. and Hadi, A. S. (2006), "Functional Networks," in *Encyclopedia of Statistical Sciences*, Second Edition (Samuel Kotz, N. Balakrishnan, Campbell B. Read and Brani Vidakovic, eds.), 4, 2573–2583.
- Castillo, E. and Hadi, A. S. (2006), "Markov Networks," in *Encyclopedia of Statistical Sciences*, Second Edition (Samuel Kotz, N. Balakrishnan, Campbell B. Read and Brani Vidakovic, eds.), 7, 4535–4546.
- Moustafa, R. E., and Hadi, A. S. (2006), "Fast and Efficient Graphs for Exploring Massive, Hyperdimensional Data," *Computing Science and Statistics*, 38.
- Moustafa, R. E., Hadi A., S., (2006), "Visualizing Hyper-Dimensional Data with the L1-L2 Plot," *Proceedings of the Hawaii International Conference on Statistics, Mathematics and Related Fields*, 1282–1291.
- Minguez, R., Castillo, E., and Hadi, A. S., (2005), "Solving the Inverse Reliability Problem Using Decomposition Techniques," *Structural Safety*, 27, 1–23.
- Castillo, E. and Hadi, A. S. (2004), "Sensitivity Analysis in Estimation Problems," *Proceedings of the 17th Annual Conference on Statistics and Computer Modeling in Human and Social Sciences*, Cairo University, 5–29.
- Castillo, E., Hadi, A. S., Conejo, A., and Fernández-Canteli, A., (2004), "A General Method for Local Sensitivity Analysis with Application to Regression Models and Other Optimization Problems," *Technometrics*, 46, 430–444.
- Minguez, R., Castillo, E. and Hadi, A. S. (2004), "Sensitivity Analysis in Reliability Based Optimization," in *Proceedings of the Fourth International Conference on Mathematical Methods in Reliability*, Santa Fe, New Mexico, World Scientific Publishing, *Series on Quality, Reliability and Engineering Statistics*, June 21-25, 2004. Santa Fe, New Mexico.
- Castillo, E., Castillo, C., Hadi, A. S., and Sarabia, J. M., (2004), "Some New Methods for Local Sensitivity Analysis in Statistics," *Proceedings of the International Conference on Distribution Theory, Order Statistics and Inference in Honor of Barry C. Arnold*, June 16–18, 2004, 1–15.
- Castillo, E. and Hadi, A. S. (2004), "On the Specification of Very Large, Complex Probabilistic Models," *Proceedings of the Sixteenth Annual Conference on Statistics and Computer Modelling in Human and Social Sciences*, Cairo University, 1.

- Castillo, E. and Hadi, A. S. (2003), “Modelling Extreme Events Data” *Proceedings of the 38th Annual Conference on Statistics, Computer Science, and Operations Research*, Cairo University, 1–14.
- Castillo, E., Hadi, A. S., Lacruz and, B., and Pruneda, R. E. (2003), “Functional Network Models in Statistics,” *Monografías del Seminario Matemático García de Galdeano*, 27, 174–177.
- Billor, N., Hadi, A. S., and Kiral, G. (2003), “A Comparison of Multiple Outlier Detection Methods for Regression Data,” *Proceedings of the Statistical Computing Section, American Statistical Association*, 1718–1723.
- Castillo, E. and Hadi, A. S. (2003), “Bayesian Network Models and Their Applications,” *Proceedings of the Fifteenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences*, Cairo University, 1–16.
- Hadi, A. S. and Nyquist, H. (2002), “Sensitivity Analysis in Statistics,” *Journal of Statistical Studies: A Special Volume in Honor of Professor Mir Masoom. Ali's 65th Birthday*, 18, 125–138.
- Castillo, E., Hadi, A. S., Lacruz, B., and Sarabia, J. M. (2002), “Constrained Mixture Distributions,” *Metrika*, 55, 247–269.
- Ortigosa, D., Castillo, E., and Hadi, A. S. (2002), “Sensitivity Analysis Using Duality Approaches”, *SAMO*, 2002, Venice.
- Castillo, E. and Hadi, A. S. (2002), “Neural and Functional Networks and Their Applications,” *Proceedings of the Fourteenth Annual Conference on Statistics and Computer Modeling in Human and Social Sciences*, Cairo University, 1–12.
- Castillo, E., Gutiérrez, J. M., Hadi, A. S., and Lacruz, B. (2001), “Some Applications of Functional Networks in Statistics and Engineering,” *Technometrics*, 43, 10–24. This paper received the “**2001 Technometrics Invited Paper Award**” and was presented as such at the Joint Annual Meetings of five statistical societies in Atlanta, GA (August 7, 2001).
- Castillo, E., Hadi, A. S., Lacruz, B., and Sarabia, J. M. (2001), “Regression Diagnostics for the Least Absolute Value and the Minimax Methods,” *Communications in Statistics: Theory and Methods*, 30, 6, 1197–1225.
- Castillo, E., Hadi, A., and Lacruz, B. (2001), “Optimal Transformations in Multiple Linear Regression Using Functional Networks,” *Proceedings of the International Work-Conference on Artificial and Natural Neural Networks. IWANN 2001*, in *Lecture Notes in Computer Science 2084, Part I*, 316–324.
- Billor, N., Chatterjee, S., and Hadi, A. S. (2001), “Iteratively Re-weighted Least Squares Method for Outlier Detection in Linear Regression,” *Bulletin of the International Statistical Institute*, 1, 479–480.

- Billor, N., Hadi, A. S., and Velleman, P. F. (2000), “BACON: Blocked Adaptive Computationally-Efficient Outlier Nominators,” *Computational Statistics and Data Analysis*, 34, 279–298.
- Castillo, E., Cobo, A., Gómez-Nesterkín, and Hadi, A. S. (2000), “A General Framework for Functional Networks,” *Networks*, 35, 70–82.
- Castillo, E., Hadi, A. S., and Sarabia, J. M. (1999), “A Constrained Optimization Method for Fitting Prediction Models,” *Journal of Economic and Social Research*, 1, 35–63.
- Dodge, Y. and Hadi, A. S. (1999), “Simple Graphs and Bounds for the Elements of the Hat Matrix,” *Journal of Applied Statistics*, 26, 817–823.
- Hadi, A. S. and Nyquist, H. (1999), “Frechet Distance as a Tool for Diagnosing Elliptically Symmetric Multivariate Data,” *Linear Algebra and Its Applications*, 289, 183–201.
- Castillo, E., Fernández-Canteli, A., and Hadi, A. S. (1999), “On Fitting a Fatigue Model to Data,” *International Journal of Fatigue*, 21, 97–106.
- Castillo, E., Hadi, A. S., Jubete, F., and Solares, C. (1999), “An Expert System for Coherent Assessment of Probabilities in Multigraph Models,” *Networks*, 33, 193–206.
- Castillo, E., Hadi, A. S., and Sarabia, J. M. (1998), “A Method for Estimating Lorenz Curves,” *Communications in Statistics, Theory and Methods*, 27, 2037–2063.
- Hadi, A. S. (1999), “An Interesting Property of Mahalanobis Distances,” *Econometric Theory*, Problem 99.1.2, 15, 151–152.
- Gutiérrez, J. M., and Hadi, A. S. (1998), “Improving Search-Based Inference in Bayesian Networks,” *Proceedings of the Eleventh International Florida Artificial Intelligence Research Symposium*, 405–409.
- Hadi, A. S. and Ling, R. F. (1998), “Response to Cuadras’ LTE,” *The American Statistician*, 52, 371.
- Hadi, A. S. and Ling, R. F. (1998), “Some Cautionary Notes on the Use of Principal Components Regression,” *The American Statistician*, 52, 15–19.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1998), “Modeling Probabilistic Networks of Discrete and Continuous Variables,” *Journal of Multivariate Analysis*, 64, 48–65.
- Hadi, A. S. and Velleman, P. F. (1997), “Computationally Efficient Adaptive Methods for the Identification of Outliers and Homogeneous Groups in Large Data Sets,” *Proceedings of the Statistical Computing Section, American Statistical Association*, 124–129.
- Castillo, E. and Hadi, A. S. (1997), “Fitting the Generalized Pareto Distribution to Data,” *Journal of the American Statistical Association*, 92, 1609–1620.

- Hadi, A. S. and Luceño, A. (1997), “Maximum Trimmed Likelihood Estimators: A Unified Approach, Examples, and Algorithms,” *Journal of Computational Statistics & Data Analysis*, 25, 251–272.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1997), “Combining Multiple Directed Graphical Representations into a Single Probabilistic Model,” *Proceedings of the Seventh Conference of the Spanish Association for Artificial Intelligence*, 97, 645–652.
- Hadi, A. S. and Simonoff, J. S. (1997), “A More Robust Outlier Identifier for Regression Data,” *Bulletin of the International Statistical Institute*, 281–282.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1997), “Sensitivity Analysis in Discrete Bayesian Networks,” *IEEE Transactions on Systems, Man and Cybernetics*, 27, 412–423.
- Castillo, E., Gutiérrez, J. M., Hadi, A. S., and Solares, C. (1997), “Symbolic Propagation and Sensitivity Analysis in Gaussian Bayesian Networks with Application to Damage Assessment,” *The International Journal for Artificial Intelligence in Engineering*, 11, 173–181.
- Castillo, E., Hadi, A. S., and Sarabia, J. M. (1997), “Fitting Continuous Bivariate Distributions to Data,” *The Statistician*, 46, 355–369.
- Castillo, E., Hadi, A. S., and Solares, C. (1997), “Learning and Updating of Uncertainty in Dirichlet Models,” *Machine Learning*, 26, 43–63.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1996), “Goal Oriented Symbolic Propagation in Bayesian Networks,” *Proceedings of the AAAI*, 96, 1263–1268.
- Hadi, A. S. and Mulugetta, Y. (1996), “Estimation of a Product of Two Regression Lines,” *Econometric Theory*, Solution of Problem 95.3.2, 12, 589–590.
- Hadi, A. S., Lee, H., and Son, M. S. (1996), “A Comparison of Methods for the Detection of Outliers in Multivariate Data,” *The Korean Communications in Statistics*, 3, 53–67.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1996), “A New Method for Efficient Symbolic Propagation in Discrete Bayesian Networks,” *Networks*, 28, 31–43.
- Castillo, E. and Hadi, A. S. (1995), “A Method for Estimating Parameters and Quantiles of Continuous Distributions of Random Variables,” *Computational Statistics and Data Analysis*, 20, 421–439.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1995), “An Introduction to Expert Systems for Medical Diagnoses,” *Biocybernetics and Biomedical Engineering*, 15, 63–84.
- Castillo, E. and Hadi, A. S. (1995), “Modeling Life-Time Data with Application to Fatigue Models,” *Journal of the American Statistical Association*, 90, 1041–1054.
- Hadi, A. S., Jones, W. D., and Ling, R. F. (1995), “A Unifying Representation of Some Case-Deletion Influence Measures in Univariate and Multivariate Linear Regression,” *Journal of Statistical Planning and Inference*, 46, 123–135.

- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1995), "Parametric Structure of Probabilities in Bayesian Networks," in *Lecture Notes in Artificial Intelligence: Symbolic and Quantitative Approaches to Reasoning and Uncertainty* (C. Froidevaux and J. Kohlas, eds), New York: Springer-Verlag, 946, 89–98.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1995), "Symbolic Propagation in Discrete and Continuous Bayesian Networks," in *Mathematics with Vision*, (V. Keranen and P. Mitic, eds.), Computational Mechanics Publications, 77–84.
- Castillo, E., Hadi, A. S., and Sarabia, J. M. (1995), "Statistical Analysis of Extreme Waves," *OMAE: Offshore Mechanics and Arctic Engineering*, Vol. II: *Safety and Reliability*, 33–40.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1995), "Estructura Algebraica de Probabilidades en Redes Bayesianas: Aplicacion a la Propagacion Symbolica," *Proceedings of the 22nd National Conference on Statistics and Operations Research*, Seville, Spain, 129–130.
- Castillo, E., Hadi, A. S., and Sarabia, J. M. (1995), "A Method for Estimating Lorenz Curves," *Proceedings of the 22nd National Conference on Statistics and Operations Research*, Seville, Spain, 131–132.
- Hadi, A. S. and Simonoff, J. S. (1995), "Response to Ryan's Comments," *Journal of the American Statistical Association*, 90, 811–812.
- Hadi, A. S. and Mulugetta, Y. (1995), "Estimation of a Product of Two Regression Lines," *Econometric Theory*, Problem 95.3.2, 11, 637–638.
- Hadi, A. S. (1994), "A Modification of a Method for the Detection of Outliers in Multivariate Samples," *Journal of the Royal Statistical Society, Series (B)*, 56, 393–396.
- Hadi, A. S. and Simonoff, J. S. (1994), "Improving the Estimation and Outlier Identification Properties of the Least Median of Squares and Minimum Volume Ellipsoid Estimators," *Parisankhyan Samikkha*, 1, 61–70.
- Castillo, E. and Hadi, A. S. (1994), "Parameter and Quantile Estimation for the Generalized Extreme-Value Distribution," *Environmetrics*, 5, 417–432.
- Castillo, E. and Hadi, A. S. (1994), "Parameters and Quantiles Estimation for Continuously Distributed Random Variables," *Proceedings of the Statistical Computing Section, American Statistical Association*, 284–289.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1994), "BNetworks: Una Concha Para Sistema Expertos Basados en Redes Bayesianas," *UNIMAC*, 94, 375–382.
- Castillo, E., Gutiérrez, J. M., and Hadi, A. S. (1994), "Generacion Automatica deCodigo Simbolico Para Sistemas Expertos," *UNIMAC*, 94, 383–390.

- Hadi, A. S. and Simonoff, J. S. (1993), "Procedures for the Identification of Multiple Outliers in Linear Models," *Journal of the American Statistical Association*, 88, 1264–1272.
- Hadi, A. S. and Nyquist, H. (1993), "Further Theoretical Results and a Comparison Between Two Methods for Approximating Eigenvalues of Perturbed Covariance Matrices," *Statistics and Computing*, 3, 113–123.
- Gould, W. and Hadi, A. S. (1993), "Identifying Multivariate Outliers," *Stata Technical Bulletin*, 11, 2–5.
- Hadi, A. S. and Joo, H. (1993), "An Empirical Evaluations of Viable Methods for the Identification of Outliers in Multivariate Data," *Bulletin of the International Statistical Institute*, 533–534.
- Hadi, A. S. (1992), "Identifying Multiple Outliers in Multivariate Data," *Journal of the Royal Statistical Society, Series (B)*, 54, 761–771.
- Hadi, A. S. (1992), "A New Measure of Overall Potential Influence in Linear Regression," *Computational Statistics and Data Analysis*, 14, 1–27.
- Hadi, A. S. and Simonoff, J. S. (1992), "Outliers in Linear Models: A Letter to the Editor," *Technometrics*, 34, 375–377.
- Hadi, A. S. and Wells, M. T. (1991), "Minimum Distance Method of Estimation and Testing When Statistics Have Limiting Singular Multivariate Normal Distribution," *Sankhya*, Vol. 53, Series B, Part 2, 257–267.
- Hadi, A. S. and Wells, M. T. (1991), "A Matrix Equation," *Econometric Theory*, 7, 420–424.
- Hadi, A. S. and Wells, M. T. (1991), "Correlation Among Unconstrained Variables in a Pooled Model," *Econometric Theory*, 7, 545–546.
- Hadi, A. S. and Wells, M. T. (1990), "Assessing the Effects of Multiple Rows on the Condition Number of a Matrix," *Journal of the American Statistical Association*, 85, 786–792.
- Hadi, A. S. (1990), "Two Graphical Displays for the Detection of Potentially Influential Subsets in Regression," *Journal of Applied Statistics*, 17, 313–327.
- Hadi, A. S. and Wells, M. T. (1990), "A Note on Generalized Wald's Test," *Metrika*, 37, 309–315.
- Hadi, A. S. and Son, M. S. (1990), "Some Properties of, and Relationships Among, Several Uncorrelated and Homoscedastic Residual Vectors," *Communications in Statistics, Theory and Methods*, A19, 7, 2625–2642.
- Hadi, A. S. and Wells, M. T. (1990), "Simultaneous Confidence Ellipsoids," *Econometric Theory*, 6, 408–409.

- Hadi, A. S. and Jersky, B. (1990), “How Fair Can Employers be?,” *Communications in Statistics: Theory and Methods*, A19, 12, 4545–4558.
- Hadi, A. S. (1990), “A Stepwise Procedure for Identifying Multiple Outliers in Linear Regression,” *Proceedings of the Statistical Computing Section, American Statistical Association*, 137–142.
- Hadi, A. S. and Velleman, P. F. (1990), “The Kodiak Island King Crab Fishery: A Graphical and Analytical Data Analysis,” *Proceedings of the Statistical Computing Section, American Statistical Association*, 275–280.
- Hadi, A. S. (1988), “Diagnosing Collinearity-Influential Observations,” *Computational Statistics and Data Analysis*, 7, 143–159.
- Chatterjee, S. and Hadi, A. S. (1988), “Impact of Simultaneous Omission of a Variable and an Observation on a Linear Regression Equation,” *Computational Statistics and Data Analysis*, 6, 129–144.
- Hadi, A. S. and Velleman, P. F. (1987), “Diagnosing Near Collinearities in Least Squares Regression,” A Discussion of “Collinearity and Least Squares Regression”, by G. W. Stewart, *Statistical Science*, 2, 93–98.
- Hadi, A. S. (1987), “The Influence of a Single Row on the Eigenstructure of a Matrix,” *Proceedings of the Statistical Computing Section, American Statistical Association*, 85–90.
- Chatterjee, S. and Hadi, A. S. (1986), “Influential Observations, High Leverage Points, and Outliers in Linear Regression (with discussions),” *Statistical Science*, 1, 379–416.
- Hadi, A. S. (1986), “The Prediction Matrix: Its Properties and Role in Data Analysis,” *Proceedings of the Business and Economic Statistics Section, American Statistical Association*, 631–636.
- Hadi, A. S. (1985), “K-Clustering and the Detection of Influential Subsets,” *Technometrics*, 27, 323–325.

f) Ph.D. Thesis:

- Hadi, A. S. (1984), “Effects of Simultaneous Deletion of a Variable and an Observation on a Linear Regression Equation,” Ph.D. Thesis, New York University. Ann Arbor, MI: University Microfilms International.