

Curriculum Vitae et Studiorum

CLAUDIO CIOFFI-REVILLA

<p>Professor of Computational Social Science Director, Center for Social Complexity Krasnow Institute for Advanced Study 235 Robinson Hall MSN 3F4 George Mason University Fairfax, VA 22030 U.S.A. tel (703) 993-1402, fax (703) 993-1399 E-Mail: ccioffi@gmu.edu</p>	<p>Residence: 1826 Corcoran Street, N.W. Washington, DC 20009 U.S.A. Phone (202) 462-1896 http://socialcomplexity.gmu.edu</p>
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Personal

Born 7 May 1951, US citizen; Lived in Europe, Latin America and North America
 Languages: English, Italian, Spanish, French; Married to Jean Nibbelink Cioffi

Education

Doctorate in Political Science, Highest Honors, University of Florence, Cesare Alfieri
 School of Political and Social Sciences, Florence, Italy, 1975
 Ph.D., Political Science, International Relations, State University of New York, 1979
 B.S., Mathematics and Science, Instituto Patria, Mexico City, 1969

Selected workshops, postdoctoral courses, and field research

International Center for Theoretical Physics ICTP, Trieste, Italy, 2002
 National Academy of Sciences, Sackler Colloquia, Irvine, 2001; Washington DC, 2005
 Texas A & M University, Winter Institute on Computational Modeling and Simulation in
 the Social Sciences, 2001
 Santa Fe Institute, NM, research visit on power laws and conflict analysis, 2000
 University of Chicago and Argonne National Laboratory, Agent 200X /Simulation of
 Social Agents, 2000, 2001, 2004, 2005
 University of Colorado, Faculty Teaching Excellence Program, Institute on Information
 Technologies, 1999
 Rheinische Friedrich-Wilhelms Universität, Bonn University, West Germany, 1982
 University of Chicago, Inter-University Consortium on Armed Forces and Society, 1982
 Field research experience: Latin America (Costa Rica, El Salvador, Guatemala,
 Honduras, Mexico), Middle East (Israel, Jordan, Palestinian Authority), East Asia
 (China).

Academic positions (full time)

George Mason University, Fairfax, since 2002: Professor of Computational Social Science; Founder and Director, Center for Social Complexity; Founder and Director, Ph.D. Program in Computational Social Science (the first in the world)

University of Colorado, Boulder: Professor of Political Science, 1995-2002; Associate Chair and Director of Graduate Studies, 1997-98; Associate Professor, 1988-95; Director, Center for International Relations, elected 1989-91, 1991-93; Colorado Ctr. for Chaos & Complexity, 1997-2002; Ctr. for Asian Studies, 1997-2002.

Università di Trieste, Italy. Scuola Internazionale di Metodologia e Matematiche per le Scienze Sociali [International School of Methodology and Mathematics for the Social Sciences], Gorizia, Italy, Co-Director and Lecturer, 1988, 1989, 1990

University of Illinois, Urbana-Champaign; Associate Professor, 1984-1988; Director of Graduate Studies, 1986-1987; Assistant Professor, 1982-1984; co-founder, Charles E. Merriam Laboratory for Analytical Political Research.

University of North Carolina, Chapel Hill, Assistant Professor, 1977-81. Co-director, Conflict and Peace Data Bank (COPDAB) Project.

Visiting appointments (selected)

International Center for Theoretical Physics ICTP, Trieste, Italy, Visiting Scientist, 2002.

Universidad Autónoma de Madrid, Spain, Centro de Economía Teórica, Visiting Professor of International Relations and Quantitative Methodology, 1984, 1986; Director, BEMEDOC Project on Mediterranean Event Data Analysis.

Università degli Studi di Firenze, Italy, Facoltà di Scienze Politiche e Sociali «Cesare Alfieri», Visiting Professor, Quantitative International Politics, 1983, 1984

Carleton University, Ottawa, Canadian School of Peace Research, Visiting Lecturer, 1977, 1978

Selected invited lectures, presentations, colloquia

Accademia Internazionale Medicea	Università degli Studi di Firenze
Ateneo Científico de Madrid	Università degli Studi di Siena
Hungarian Academy of Sciences	Università di Trieste
Yale University/HRAF	University of Lund
Tel Aviv University	University of Vienna
Universidad Autónoma de Madrid	University of Cambridge
Tokyo Institute of Technology	University of Oxford
Technical University of Vienna	Moscow State University
Indiana University	University of California Los Angeles
University of Chicago	University of California Irvine
University of Washington	University of Michigan
University of Maryland	Vanderbilt University
University of Kyoto	Smithsonian Institution NMNH
Foundation for the Future	Johns Hopkins University/APL

HONORS, AWARDS, RESEARCH GRANTS

National Academy of Science, 2006 Jefferson Science Fellow, US Department of State.
 National Science Foundation, Human and Social Dynamics Grant 0527471, Agent-Based Dynamics of Social Complexity: Modeling Adaptive Behavior and Long-Term Change in Inner Asia, 2005–2007. Principal Investigator.
 Plenary Speaker, International Conference on Agent-Based Economic and Social Complex Systems, Pacific Association for Agent-Based Social Systems Science, Tokyo Institute of Technology, Tokyo, July 11, 2005.
 Smithsonian Institution, National Museum of Natural History. Visiting Scientist, 2004–. DOD/MURI/AFOSR Research Grant 2005–21, Computational Modeling of Adversary Attitudes and Behaviors. Co-PI with Alexander H. Lexis (PI) and Kathleen Carley (Co-PI). 2005–2009.
 DARPA/IXO/PCAS Evolutionary Computation for Pre-Conflict Analysis and Shaping. Seedling Grant. Co-PI with Sean Luke. 2004–05. Sapling phase: Quantitative/Computational Social Science, 2005. Chief Scientist, Government Team.
 Cosmos Club of Washington DC, Elected Member, 2004.
 Complex Systems Network of Excellence (EXYSTENCE), EU Commission, 2002
 Chiang Ching-Kuo Foundation for International Scholarly Exchange, Research and Travel Grant, 2001.
 Cooperative Institutes for Research on Environmental Sciences (CIRES), University of Colorado at Boulder, Research Grant, 2000. With J. Rundle (co-PI)
 Men of Achievement, International Biographical Centre, Cambridge, England, 1993
 Conflict Resolution Consortium, William and Flora Hewlett Foundation, Research Grant, Project COSMOS (Conflict and Security Monitoring System), 1991
Who's Who in Science and Engineering, 1991–; *Who's Who in America*, 1993–; *Who's Who in the World*, 1994–
 National Science Foundation, DDIR Research Grant, 1990
 Apple Computer Foundation and President's Council on Advanced Information Technologies, Research Grant, 1990
 United Nations Association of the United States, Citation for Distinguished Outstanding Service on Behalf of the United Nations, 1989
 National Science Foundation, DDIR Research Grant, 1989-1990
 Consiglio Nazionale per le Ricerche (C.N.R.) [Italian National Research Council], Research Grants, 1988, 1989
 Österreichische Studiengesellschaft für Kybernetik [Austrian Society for Cybernetic Studies], Best Paper Award, Vienna, 1988.
 International Political Science Association, nominated Secretary-General, 1987
 New York Academy of Sciences, Elected Member, 1987
 Consejo Superior de Investigaciones Científicas [National Science Research Council of Spain], Visiting Lecturer, 1985; Visiting Scholar, 1986
 University of Illinois at Urbana-Champaign, George A. Miller Visiting Research Scholar, 1981-1982; List of Excellent Teachers, 1983; Beckman Fellow in The Center for Advanced Study, 1984-85; Hewlett Fellow in International Studies, 1985
 NATO Science Committee, Program in International Research Collaboration, Research Grant, 1985

US-Spanish Joint Committee on Scientific, Technical, and Cultural Cooperation,
Institutional Development Cooperation Program, 1984-1986
Società Italiana per l'Organizzazione Internazionale [Italian Society for International
Organization], Research Grants, 1985, 1986-89
Italian Ministry of Education, Research Grant, 1985-86
Accademia Internazionale Medicea [International Medici Academy], Florence, Italy,
Elected Academician, 1983
United Nations, Roster of Professional Experts, 1983
Associazione per la Matematica Applicata alle Scienze Economiche e Sociali AMASES
[Italian Association for Applied Mathematics in the Economic and Social
Sciences], Elected Member, 1983
Deutscher Akademischer Austauschdienst (DAAD) [German Academic Exchange
Service], Visiting Scholar Grant, 1982
US Department of Education, Teaching Grant, 1982-83
Atlantic Council of the United States & Atlantic Institute of International Affairs, Paris,
Young Leadership Program: Aspen Institute, Berlin, 1982; Wingspread, 1981
University of North Carolina at Chapel Hill, Junior Faculty Award, 1981
U.S. National Science Foundation (NSF), Research Grants, 1978, 1979, 1984-87
State University of New York, Graduate School Fellow, 1976-77
Canadian School of Peace Research, Anatol Rapoport Fellow, 1976
Università degli studi di Firenze [University of Florence], Centro di Politica Comparata,
Postdoc, 1975-76; Istituto di Scienza della Politica, Postdoc, 1976

SELECTED PUBLICATIONS

Books

*Power Laws in the Social Sciences: Discovering Non-equilibrium Dynamics in the Social
University.* Forthcoming. Ms. under review at Cambridge University Press.
Politics and Uncertainty: Theory, Models and Applications. Cambridge University
Press, 1998.
*The Scientific Measurement of International Conflict: Handbook of Datasets on Crises
and Wars, 1495-1988 A.D.* Boulder, Colorado: Lynne Rienner Publishers, 1990.
Communication and Interaction in the Global System. Beverly Hills, CA: Sage
Publishers. 1987. Editor with R.L. Merritt, D.A. Zinnes.
Mathematical Models in International Relations. Institute for Research in the Social
Sciences, University of North Carolina at Chapel Hill, 1979.

Refereed articles and chapters (selected)

46. Computational Social Science, Conflict Analysis and the 21st Century Threat Triad.
In *21st Century Information Technologies and Enabling Policies for Counter
Terrorism.* Ed. by R. Popp. IEEE Press, 2006 forthcoming.
45. Information Technologies for Counterterrorism and Empowering Policy in the 21st
Century. In *21st Century Information Technologies and Enabling Policies for*

- Counter Terrorism*. Ed. by R. Popp. IEEE Press, 2006 forthcoming. With D. Allen, R. Popp.
44. The Big Collapse: A Brief Cosmology of Globalization. In *Globalization and Global History*, eds. B. Gills & W. R. Thompson. London and New York: Routledge, 2006.
 43. Replication of Sugarscape Using MASON (Multi-Agent Simulator of Networks and Neighborhoods), *Proceedings of the 4th International Workshop on Agent-Based Approaches in Economic and Social Complex Systems AESCS 2005*, Tokyo Institute of Technology, July 9–13, 2005. With A. Bigbee, S. Luke.
 42. MASON: A Java Multi-Agent Simulation Environment, *Simulation: Transactions of the Society for Modeling and Simulation International* **81**(7)2005:517–527. With S. Luke, L. Panait, K. Sullivan
 41. A Canonical Theory for the Emergence and Development of Social Complexity, *Journal of Mathematical Sociology* **29**(2)2005:133–153.
 40. Mnemonic Structure and Sociality: A Computational Agent-Based Simulation Model, In *Proceedings of the Agent 2004 Conference on Social Dynamics: Interaction, Reflexivity and Emergence*, D. Sallach & C. Macal, eds. University of Chicago, Argonne National Laboratory. With S. Paus, S. Luke, J. L. Olds & J. Thomas
 39. The Next Record-setting Warfare in the Global Setting: A Long-Term Analysis, *Journal of the Washington Academy of Sciences* **90**(2) Summer 2004: 61-78.
 38. Origins of Warfare. In W.H. McNeill et al, eds, *Berkshire Encyclopedia of World History*. Great Barrington, MA: Berkshire Publishing Group. 2004.
 37. Power Laws, Scaling, and Fractals in the Most Lethal International and Civil Wars. In *The Scourge of War: New Extensions on an Old Problem*, P.F. Diehl, ed. Ann Arbor, MI: University of Michigan Press, 2004. Pp. 3-27. With M.I. Midlarsky.
 36. Comparative Analysis of Agent-Based Social Simulations: GeoSim and FEARLUS Models, *Journal of Artificial Societies and Social Simulations* **6**(4) October 2003. With N. Gotts. <http://jasss.soc.surrey.ac.uk/6/4/10.html>
 35. Invariance and Universality in Social Agent-Based Simulations, *Proceedings of the National Academy of Sciences of the U.S.A.* **99**, Suppl. 3(14) 2002: 7314–7316. http://www.pnas.org/cgi/content/full/99/suppl_3/7314
 34. Necessity and sufficiency in social phenomena: theoretical and methodological progress. In *Necessary Conditions: Theory, Methodology, and Applications*. G. Goertz, H. Starr, eds. Lanham, MD: Rowman & Littlefield, 2002: 295-303.
 33. Chinese Warfare and Politics in the Ancient East Asian International System, ca. 2700 B.C. to 722 B.C., *International Interactions* **26**(4) 2001: 347–378. With D. Lai.
 32. War and Warfare: Scales of Conflict in Long-Range Analysis. In *World System History: The Social Science of Long-Term Change*, R.A. Denemark, J. Friedman, B.K. Gills, G. Modelski, eds. London: Routledge, 2000, pp. 253–272.
 31. Ancient Warfare: Origins and Systems. In *Handbook of War Studies II*, M.I. Midlarsky, ed. Ann Arbor, MI: University of Michigan Press, 2000, pp. 59–89.

30. Evolution of Maya Polities in the Ancient Mesoamerican System, *International Studies Quarterly* **43**(4) 1999: 559–98. With Todd Landman.
29. Origins and Age of Deterrence: Comparative Research on Old World and New World Systems, *Cross-Cultural Research: Journal of Comparative Social Science* **33**(3) 1999:239–64.
28. Struggles for Power: A Punctuated Equilibrium Model of Interstate Rivalries. In *The Dynamics of Enduring Rivalries*, P.F. Diehl, ed. Urbana, Ill.: University of Illinois Press. 1998. Pp. 64–97.
27. The Road to War: Modeling the Onset of War with Political Uncertainty Theory, *Proceedings of the Conference on Mathematical Models of International Conflict*, Institute for Mathematical Applications IMA, Wadham College, University of Oxford, UK, April 1997.
26. Origins and Evolution of War and Politics, *International Studies Quarterly* **40**(1) 1996:1–44.
25. Opportunity, Willingness, and Political Uncertainty: Theoretical Foundations of Politics, *Journal of Theoretical Politics* **7**(4) 1995:447–476. Repr. in *Necessary Conditions: Theory, Methodology, and Applications*. G. Goertz, H. Starr, eds. Lanham, MD: Rowman & Littlefield. 2002. With Harvey Starr.
24. War and Politics in Ancient China, 2700 to 722 B.C.: Measurement and Comparative Analysis, *Journal of Conflict Resolution* **39**(3) 1995:467–494. With D. Lai.
23. Response to Moul’s Comments on ‘The Likely Magnitude, Extent, and Duration of an Iraq-UN War, *Journal of Conflict Resolution* **38**(1) 1994:170–172.
22. On the Likely Magnitude, Extent, and Duration of the Iraq-UN War, *Journal of Conflict Resolution* **35**(3) 1991:387–411.
21. The Long-Range Analysis of War, *Journal of Interdisciplinary History* **21**(4)1991:603–629.
20. Probabilistic Dynamics of Crises and War: Mathematical Contributions, *Cybernetics and Systems: An International Journal* **20**(2)1989:125-151.
19. Mathematical Contributions to the Scientific Understanding of War, *Mathematical and Computer Modeling* **12**(4/5),1989: 561-575. Repr. in P.E. Johnson (Ed.), *Formal Theories of Politics: Mathematical Modeling in Political Science*. Oxford, UK: Pergamon Press, 1989.
18. Claudio Cioffi-Revilla and Raymond Dacey. “The Probability of War in the n - Crises Problem: Modeling New Alternatives to Wright's Solution, *Synthese: An International Journal of Epistemology, Methodology and Philosophy of Science* **76**(1) 1988:285-305. With Raymond Dacey.
17. Crises, Wars, and International Stability. In C. Cioffi-Revilla, R.L. Merritt, D.A. Zinnes, eds. *Interaction and Communication in the Global System*. Beverly Hills, Calif.: Sage Publishers, 1987, pp. 49–66.
16. Teoria polemologica e scienza dei conflitti [Conflict Theory and the Science of Conflict], *Progetto Pace* [Italian Quart. Journal of Peace Research] **1**(2)1986:25–48.

15. Teoria della conflittualità internazionale [A Theory of International Conflict], *Teoria Politica* [Italian Journal of Political Theory] **2**(1) 1986: 95-122.
14. Political Reliability and War in the International System, *American Journal of Political Science* **29**(1) 1985:47-68.
13. Simulation of Reliability Kinematics in Political Systems of Order (m,n). In U. Luterbacher, M.D. Ward, eds. *Dynamic Models of International Conflict*. Boulder, CO: Lynn Rienner Publishers. 1985, pp. 278–318.
12. European Political Cooperation: An Application of Political Reliability Theory to Integration, *International Studies Quarterly* **28** (4) 1984:467–492.
11. The Political Reliability of Italian Governments: An Exponential Survival Model, *American Political Science Review* **78**(2) 1984:318–338.
10. Stati Uniti e Comunità Europea: Conflitto o Cooperazione? [The United States and the European Community: Conflict or Cooperation? *Rivista Italiana di Scienza Politica* [Italian Political Science Review] **13**(3) 1983:445-466.
9. A Probability Model of Credibility: Analyzing Deterrence in Strategic Nuclear Systems, *Journal of Conflict Resolution* **27**(1) 1983:73-108.
8. Political Reliability in International Relations,” in D.A. Zinnes, ed., *Conflict Processes and the Breakdown of International Systems* , Denver, CO: University of Denver Monograph Series in World Affairs, Vol. 27, Book 2, 1983, pp. 11-45.
7. Communications Research and the New International Information Order, *Journal of International Affairs* **35**(2) 1981/82:225-245. With R.L. Merritt.
6. Fuzzy Sets and Models of International Relations, *American Journal of Political Science* **24**(1) 1981:129-159.
5. La teoria delle catastrofi e i fenomeni discontinui in politica e in economia [Catastrophe Theory and Discontinuous Phenomena in Politics and Economics], in U. Gori and O. Onori, eds., *Techniche di analisi per le decisioni politiche ed economiche* [Analytic Techniques for Political and Economic Decisionmaking], Milan: Franco Angeli editore, 1980. pp. 87-96.
4. Diplomatic Communications Theory: Channels, Signals, and Networks, *International Interactions* **6**(3)1979:209–265.
3. Il contributo delle scienze naturali alla ricerca sulla pace [The Contribution of the Natural Sciences to Peace Research], in U. Gori, ed., *Natura e orientamenti delle ricerche sulla pace* [The Nature and Approaches to Peace Research], Milan, Italy: Franco Angeli editori, 1979. pp. 289-308.
2. A Cusp Catastrophe Model of Nuclear Proliferation, *International Interactions* **4**(3) 1978:199–224.
1. Odysseus Today: Quantitative Approaches to International Relations, in M. Bunge, J. Galtung, M. Malitza, eds., *Mathematical Approaches to International Relations*. Bucharest, Romania: Romanian Academy of Social and Political Sciences and UNESCO, 1977. pp. 23-33. With U. Gori, F. Attinà.

Other publications (selection)

- Claudio Cioffi-Revilla and John B. Rundle, *Driven Threshold Systems and Scaling Processes: Earthquakes and Wars*. Colorado Center for Chaos and Complexity, Cooperative Institute for Research on Environmental Science CIRES, University of Colorado, Boulder, USA, October 2001. Science Poster.
- Claudio Cioffi-Revilla. Invited “Comment” on Guillermo Algaze’s, “Initial Social Complexity in Southwestern Asia: The Mesopotamian Advantage,” *Current Anthropology*, Vol. 42, no. 2, April 2001, pp. 216–17.
- Claudio Cioffi-Revilla. “The Road to War: Modeling the Onset of War with Political Uncertainty Theory,” *Proceedings of the Conference on Mathematical Models of International Conflict*, Institute for Mathematical Applications IMA, Wadham College, University of Oxford, UK, April 1997.
- Claudio Cioffi-Revilla. “The Long-Range Analysis of War (LORANOW) Project: A Description’, *Newsletter of the Conflict Process Section of the American Political Science Association*. 1994. Also published in electronic media, *World Systems Network*, <http://csf.colorado.edu/wsystems/sarch/html>
- Claudio Cioffi-Revilla, *Data Resources for the Study of Interstate Conflict: What We Have and What We Need*. Prepared for the Workshop on Advancing the Scientific Study of War, Sponsored by the Wissenschaftszentrum Berlin für Sozialforschung GmbH, Washington, D.C., 27-28 August 1991.
- Claudio Cioffi-Revilla. “The Interstate Conflict Datasets Catalog (ICDC): A Progress Report,” *DDIR-UPDATE* [Newsletter of the Data Development for International Research (DDIR) Project], Vol. 3, no. 1, October 1988, pp. 1-4.
- Claudio Cioffi-Revilla. “Time-Dependent Reliability of Global Security Systems: Some Lessons from National Security Analysis,” in International Federation for Automatic Control, *Proceedings of the 11th World IFAC Congress, Tallinn, Lithuanian SSR* (London: Pergamon Press, 1990).
- Claudio Cioffi-Revilla. “Scientific Datasets for International Stability and Global Security: The «Interstate Conflict Datasets Catalog» (ICDC),” in Peter Kopacek and Harold Chestnut, eds., *International Conflict Resolution and Systems Engineering: Proceedings from the 1989 IFAC International Workshop in Budapest, Hungary*. Oxford, U.K.: Pergamon Press, 1989.
- Claudio Cioffi-Revilla. “Thoughts on Strategic Weapons: Three Models on Instability and Catastrophe,” *Yearbook of the Canadian School of Peace Research*, Vol. 7, 1976, pp. 13-24.

Book reviews

- Review of *Great Power Rivalries*, by William R. Thompson, ed. (Columbia, SC: University of South Carolina Press, 1996), *American Political Science Review*, in preparation.
- Review of *Polities: Authority, Identities and Change*, by Yale H. Ferguson and Richard L. Mansbach (Columbia, SC: University of South Carolina Press, 1996), *American Political Science Review*, Vol. 95, no. 1, March 2001, pp. 253-54.
- Review of *Tutte le Russie: Storia e cultura degli Stati europei della ex Unione Sovietica dalle origini a oggi*, by Sergio Salvi (Florence, Italy: Ponte Alle Grazie, 1994), *Nationalism and Ethnic Politics*, Vol. 1, no. 4, Winter 1995, pp. 151–53.
- Review of *The War Puzzle*, by John A. Vasquez (Cambridge, UK: Cambridge University Press, 1993), *American Political Science Review*, Vol. 89, no. 2, June 1995, pp. 537–539.
- Review of *Mathematical Models in the Social and Behavioral Sciences*, by Anatol Rapoport (New York: John Wiley and Sons, 1982), *American Political Science Review*, Vol. 78, no. 2, June 1984, p. 592.
- Review of *The EEC and the Third World*, Ed. by K.B. Lall and H.S. Chopra (Humanities Press: Atlantic Highlands, N.J., 1981); *Economic Divergence in the European Community*, Ed. by Michael Hodges and William Wallace (London: George Allen and Unwin for the Royal Institute of International Affairs, 1981); *Harmonization in the EEC*, Ed. by Carol Cosgove Twitchett (New York: St. Martin's Press, 1981). Review essay, *American Political Science Review*, Vol. 76, no. 2, June 1982: 399-401.

Works in progress:

- Power Laws in the Social Sciences*. Edited volume. Each chapter demonstrates the discovery of power law (non-Normal) distributions in a diversity of domains across the social sciences, examining underlying common patterns and critical differences. Confirmed contributors: Simone Alfarano, Robert Axtell, Brian Berry, Peter Brecke, Michael Biggs, Claudio Cioffi-Revilla, Nicholas Gotts, Matthew Hoffmann, Paul Kellstedt, Christian Kleiber, Samuel Kotz, Ned Lebow, Thomas Lux, Benoit Mandelbrot, Manus I. Midlarsky, , Brian Pollins, John Rundle, Brian Rupley, Bruce M. Russett, Philip Schrodt, Ricard Solé, Rein Taagepera.
- The Evolution of Collective Action*. Book ms. applying complexity theory and the general theory of political uncertainty (Cioffi-Revilla 1998, Cambridge University Press) to understanding the role of human choices, emergent structures, and chance in the political economy of collective action problems and their solutions. Applications to understanding the origins of government, development of political complexity, political economic change, and international governance.

Origins of the International System: A Long-Range Analysis of Globalization. [Alternate title: *Phoenix Politica: Origins of Government and International Relations*] Book ms. On the genesis and long-term evolution of the international system, focusing on the four ancient origins of world politics (ancient Near East, China, Andes, Mesoamerica). Proposes the new “Pleogenic Theory” of world order as an improvement over the current Westphalian Theory of world politics. Based on interdisciplinary approaches from political science, archaeology, history, geography and epigraphy, combining qualitative, quantitative, and formal methods.

Handbook of Politics in the International System: Vol. I, Introduction and Codebook
Vol. II, The First International System: West Asian Politics, 6000 B.C. to 1500 B.C.
Vol. III, The Second International System, East Asian Politics, 5500 B.C. to 500 B.C.
Vol. IV, The Third International System: Andean Politics, 2800 B.C. to A.D. 1500
Vol. V, The Fourth International System, Mesoamerican Politics, 2000 B.C. to A.D. 1500. Book ms. and electronic publication. New long-range data set of politics in the formative “pleogenic” international systems, covering the earliest political evolution of the first chiefdoms, states, and empires. Data sets will be posted at the archive of the Harvard-MIT Data Center.

TEACHING EXPERIENCE (Summary)

Taught undergraduate, graduate, and post graduate courses in Quantitative/Computational Social Science and International Relations at universities in the U.S. and abroad. Detailed course listings and syllabi available upon request.

Courses (only current or recent)

I. GRADUATE:

Introduction to Computational Social Sciences
 Computational Analysis of Social Complexity
 Origins of Social Complexity
 Formal Methods in Political Science
 Theory and Methods in International Relations
 Origins of International Relations
 Comparative International Systems
 Theory and Research on Causes of War and Conditions of Peace
 International Security and Strategic Analysis
 Quantitative International Politics
 Political Methodology

II. UNDERGRADUATE:

Introduction to International Relations and World Politics
 Studies in World Order and Governance
 Origins of the International System

World Futures

Introduction to Political Analysis and Research Methods

Events Data Research in International Relations and Comparative Politics

Political Science and International Relations for Math and Science Majors

(Complete Listing of Doctoral dissertations and master's and honors' theses chaired is available upon request.)

Graduate education:

Directed Ph.D. dissertations, master's and honors thesis at the following universities:

The University of North Carolina at Chapel Hill (pre-tenure)

University of Illinois at Urbana-Champaign (tenured)

University of Colorado, Boulder (tenured)

George Mason University (tenured)

Designed and implemented the new Ph.D. Program in Computational Social Science at George Mason University, the first interdisciplinary scientific program of its kind in the world.

Sample/incomplete list of former students:

Dr. Deborah Duong, Senior AI Engineer, Object Sciences Corporation

Dr. David Lai, Professor of National Security, Air War College, Maxwell AFB,
Montgomery, AL

Dr. Pierangelo Isernia, Associate Professor of Comparative Politics, University of Siena,
Italy

Dr. Kelly Kadera, Professor of Political Science, University of Iowa

Dr. Clay Bowen, Division Chief, Analytic Agenda, Air Force Studies & Analyses
Agency

Dr. Abdulmonen al-Mashat, Senior Officer, World Bank, Washington, DC. Formerly
Cultural Attache, Embassy of Egypt, Washington DC

Dr. Craig Murphy, Margaret Ball Professor of Political Science and Chair, Wellesley
College, MA

Dr. Douglas Nelson, Professor of Economics, Tulane University; Formerly World Bank

Dr. Sean Gorman, Postdoctoral Fellow in Homeland Security, School of Public Policy,
George Mason University

PROFESSIONAL SERVICE

UNIVERSITY SERVICE:

George Mason University (2002-present):

Director, Center for Social Complexity, Krasnow Institute for Advanced Studies

Director, Ph.D. Program in Computational Social Sciences

Professor of Computational Social Sciences, College of Sciences and College of
Social Sciences and Humanities

International Council

University of Colorado (1988-2002):

Department of Political Science: Associate Chair, Graduate Director, 1997-98; Policy Committee, 1997-present; Graduate Admissions and Awards, 1988-92, Chair, 1991-1992; Chaired recruitment committees, 1988-present; Field Committees in International Relations, and Data Lab.

Colorado Center for Chaos and Complexity. Associate Member. 1997-present. Organizer, 1998 Summer Workshop on "Modeling Complexity in Social Systems," www.Colorado.EDU/GraduateSchool/C4/sumwkshp.html

Center for International Relations (CIR). Elected director, 1989-1991, re-elected 1991-93. Board of Directors, 1988-present.

Political Science and Sociology Data Lab Steering Committee, 1991-present.

Council of Arts and Sciences Faculty (A&S College Senate), Representative of the Department of Political Science, 1995-98.

Executive Committee, Conflict and Peace Studies (CPS) Program, 1988-1991.

Dean's Social Science Writing Awards Committee, 1990-1991.

Social Sciences Dissertations Award Committee, 1996-97.

Committee on Mathematical Applications in the Life Sciences, Department of Mathematics, 1990-

Council on Research and Creative Work CRCW, 1997-1999.

University Representative, Human Relations Area Files (HRAF), Yale University, 1998-present.

Boulder Faculty Assembly (faculty senate). Member, Representative of the Department of Political Science. 1998-present. Member, BFA Budget and Planning Committee, 1998-present.

Conflict Resolution Consortium (CRC) of the William and Flora Hewlett Foundation. Member, 1988-1996. Advisory board member, 1990-1993.

University of Illinois (1982-88):

Department of Political Science: Graduate Director; Advisory Committee to the Head of the Department; Field Committees in International Relations, Formal Political Theory and Empirical Methodology, Comparative Politics, Graduate Student Evaluation Committee, Graduate Admissions and Awards Committee, Courses and Curriculum Committee, Personnel Committee.

Merriam Laboratory for Analytic Political Research (MLAPR). Co-founder, Advisory Committee, and member.

Dean's Academic Standards Committee, College of Liberal Arts and Sciences Executive Board, Office of International Programs and Studies (IPS) Executive Board, Office of Arms Control, Disarmament, and International Security (ACDIS)

War in History Seminar

Advisory Committee, Library Central Services

Advisory Committee, Hypermedia Microcomputer Laboratory

University of North Carolina (1977-82):

Member, Conflict and Peace Data Bank (COPDAB) project

Reviewer, International Interactions journal

Member, Institute for Research in the Social Sciences IRSS, Working group on cartography and events data analysis
Member, UNC-Duke Seminar on Peace and War

SERVICE TO SCHOLARLY AND PROFESSIONAL ASSOCIATIONS

Referee of scholarly manuscripts for publication and grant proposals

American Journal of Political Science AJPS
American Journal of Sociology AJS
American Political Science Review APSR
Behavioral Science BS
Comparative Political Studies CPS
Computational and Mathematical Organization Theory CMOT
Cross-Cultural Research C-CR
European Union Politics
International Interactions
International Studies Quarterly ISQ
Journal of Artificial Societies and Social Simulations JASSS
Journal of Conflict Resolution JCR
Journal of Peace Research JPR
Journal of World Systems Research JWSR
Peace and Change
Political Research Quarterly PRQ
Rivista Italiana di Scienza Politica RISP

Agent-Based Approaches in Economic and Social Complex Systems (AECS) 2004
Bedford/St. Martin's Press
Cambridge University Press
Canada Research Council
Council on Foreign Relations
Elsevier Scientific
Fullbright Program
Harper Collins College Publishers
International Political Science Association, Advances in Political Science Book Series
Multi-Agent and Multi-Agent Based Simulation (MAMAB) 2004
National Science Foundation
 Political Science Program (SBER Division)
 Methodology, Measurement and Statistics (SBER)
 Computation and Social Systems (CSS) Program (CISE Division)
Oxford University Press
Stanford University Press
University of Michigan Press
University of South Carolina Press
U.S. Department of Education, Office of Higher Education
U.S. Department of Defense, DARPA/IXO/PCAS

Professional Boards (sample only)

Joint Climate Change Research Institute, PNNL/Battelle/DOE and University of Maryland, Scientific Advisory Board, 2004–
Springer Series on Agent-Based Social Systems, Editorial Board, Member, 2005–
 International Studies Assoc., Chair, Karl W. Deutsch Award Committee, 2005–2007
 European Social Simulation Association, 2005 Program Committee
Computational and Mathematical Organization Theory, Editorial board, 2003-present.
 North American Association for Computational Social and Organizational Sciences,
 Secretary, 2005–2006; Vice President for International Relations, 2002–present
 Institute for Research on World-Systems, Advisory Board, University of California,
 Riverside, 2000-present
 Human Relations Area Files (HRAF), Yale University, Board of Directors, appointed
 1998-2002; Executive Committee, elected 2001–04
 Franco Angeli Editori, Collana “Comunicazione, Istituzione e Mutamento Sociale”,
 Milan, Italy, 2000-present
 Correlates of War Project Council, 1996-present
 International Political Science Association, Research Committee on Quantitative
 International Politics, Executive Committee, 1995-present
 United Nations, Office of the General Secretariat, External consultant, 1989-1993, Roster
 of Professional Experts, 1983-
 Club of Rome, International Scientific Advisory Board of the Forum Humanum Project
 on Factors of War and Conditions for Peace, 1983-
 Network for Analytic Modeling of International Stability (NAMIS), International
 Collaborative Scientific Project of the Center for International Relations,
 University of Colorado; Systems Research Institute, Polish Academy of Sciences,
 Warsaw; Systems Engineering and Automation Center, Johannes Kepler
 Universität, Linz; University of Electro-Communications, Tokyo; and Zhenjiang
 University, Hangzhou, P.R.C., 1987–1990
 International Studies Association, Quincy Wright Book Award Committee, Chair, 1987
 International Studies Association (Midwest Section), Co-chairman of the Annual
 Meeting, Urbana, Illinois, 1984
 Midwest Political Science Association, International Relations Section Head, 1983
 Editorial Board, *Computational Social and Organizational Science*, 2002-present
 Editorial Board, *International Interactions*, 1977-88
 Editorial Board, *International Studies Quarterly*, 1984-89
 Editorial Board, *Progetto Pace: Italian Quarterly Journal of Peace Research*, 1986-89
 Editorial Board, *Mershon International Studies Reviews*, 1993-94

Consulting (sample)

United Nations, General Secretariat, ORCI/Project COSMOS.
 Center for Health and Security. Study on smallpox and complex social systems.
 Centra Corporation. Quantitative/computational analysis of terrorism.
 DOD/DARPA/IXO/PCAS Government Team, 2005. Adviser to the PM.

DOD/JCS/DTIC/S&T Complex Systems Task Force. Quant/Comp Event Data Analysis of Insurgency
Istituto di Sociologia Internazionale di Gorizia ISIG, Trieste. Mathematical modeling.
Società Italiana per l'Organizzazione Internazionale [Italian Society for International Organization], Rome. Database development and quantitative conflict analysis.
Consejo Superior de Investigaciones Científicas [Spain High Council for Scientific Research], CSIC, Madrid. Database design, training, and event data analysis.

Memberships (sample)

Accademia Internazionale Medicea. International Medici Academy
American Association for the Advancement of Science AAAS
Sections on Social Science, Anthropology, Mathematics
American Political Science Association APSA
Sections on Methodology, Forecasting, Conflict Processes
Complex Systems Network of Excellence of the European Union, EXYSTENCE
European Simulation Society ESS
European Social Simulation Association ESSA
IEEE Systems, Man, and Cybernetics Society
International Political Science Association IPSA
Research Committee on Quantitative International Politics
International Studies Association ISA
Sections on Scientific Study of International Politics, Intelligence Studies
North American Association for Computational Social and Organizational Sciences
NAACSOS, Secretary and VP for International Relations
New York Academy of Sciences
Society for Political Methodology
Society for the Study of Early China SSEC
University of Chicago Oriental Institute
Washington Academy of Sciences

Prior US and NATO government experience

Lecturer, Diplomatic Institute, Italian Ministry of Foreign Affairs, Rome, 1973–75

Lead professional analyst, Quantitative Analysis and Methods, Counterterrorism Group, Carabinieri Division, Italian Armed Forces, 1973–1989

Adviser for Quantitative/Computational Social Science, Government Team,
DOD/DARPA/IXO/PCAS, 2004–05
DOD/JCS/S&T Complex Systems Task Force, 2005.