

## Peter Brecke

Sam Nunn School of International Affairs  
Georgia Institute of Technology  
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### Employment History

Georgia Institute of Technology		
- Ivan Allen College Assistant Dean for IT		January 2008 - present
- Sam Nunn School of International Affairs		
- Associate Professor		July 1999 - present
- Assistant Professor		Sept 1991 - June 1999
Edgewood College	Visiting Asst Professor	Sept 1992 - May 1993
BDM International, Inc.	Senior Staff Member	June 1988 - July 1991
United Nations/ORCI	Consultant	July 1989 - Jan 1990
BDM International, Inc.	Consultant	Oct 1986 - May 1988
Science Center Berlin	Research Scientist	June 1983 - May 1988

### Earned Degrees

Ph.D.	Massachusetts Institute of Technology	1988	Political Science
B.A.	Carleton College	1976	Political Science

### Classes Taught

Empirical Research Methods  
Modeling, Forecasting, and Decision Making  
Democratic Design  
Democracy 2.0: How to Design a Society  
International Institutional Design  
Global Peacemaking  
Science & Technology and International Affairs  
Political Geography  
International Political Economy  
Politics of the Lord of the Rings

## **Published Books and Parts of Books**

Pollins, B. M. and Brecke, P., "International Economic Processes," in The GLOBUS Model: Computer Simulation of Worldwide Political and Economic Developments, pp. 459-567, (S. A. Bremer, Ed.), Frankfurt am Main, West Germany: Campus Verlag; and Boulder, Colorado: Westview Press (1987).

Brecke, P., "A Bibliographical Report on Six Contemporary Global Models," in International Conflict Resolution Using Systems Engineering: Proceedings of the IFAC/SWIIS Workshop, Budapest, Hungary, 5-8 June 1989, pp. 93-112, (H. Chestnut, P. Kopacek, and T. Vamos, Eds.), IFAC Workshop Series, 1990, Number 1, Oxford: Pergamon Press (1990).

Brecke, P., "Using Neural Networks to Find Harbingers of Violent Conflicts," in Supplementary Ways for Improving International Stability 1995: Proceedings from the IFAC Conference, Vienna, Austria, 29 September-1 October 1995, pp. 99-106, (P. Kopacek, Ed.), New York: Elsevier Science (1997).

Brecke, P., "A Pattern Recognition Approach to Conflict Early Warning," in Preventative Measures: Building Risk Assessment and Crisis Early Warning Systems, pp. 135-145, (J. L. Davies and T. R. Gurr, Eds.) Totowa, NJ: Rowman & Littlefield (1998).

Long, W. J. and Brecke, P., War and Reconciliation, Cambridge, MA: MIT Press (2003).

Brecke, P., "Notes on Developing a Human Security/Insecurity Index," in Taylor Owen (ed.) *Human Security*, Sage Library of International Relations, Thousand Oaks, CA: Sage Publications (2013).

## **Refereed Publications**

Choucri, N. with Brecke, P., "Migration in the Middle East: Transformation and Change," Middle East Review, Vol. XVI, No. 2 (Winter 1983/4), pp. 16-27.

Brecke, P., "Integrated Global Models that Run on Personal Computers," Simulation, Vol. 60, No. 2 (February 1993), pp. 140-144.

Brecke, P., "The Soviet Global Model: SIM/GDP," Simulation & Gaming, Vol. 26, No. 1 (March 1995), pp. 17-26.

Brecke, P., "A Foundation for Early Warning: A Taxonomy of Violent Conflicts," Simulation, Vol. 68, No. 5 (June 1997), pp. 433-440.

Brecke, P., "An Agenda for Conflict Early Warning Research," International Studies Notes, Vol. 23, No. 1 (Winter 1998), pp. 19-23.

Brecke, P., "Finding Harbingers of Violent Conflict: Using Pattern Recognition to Anticipate Conflicts," Conflict Management and Peace Science, Vol. 16, No. 1 (Spring 1998), pp. 31-56.

Brecke, P., "Simulation of the Steps to War: Classification of Violent Conflicts a Necessary Prerequisite," Proceedings of the 1998 Conference on Simulation Methods and Applications, Orlando, FL, November 1-3, 1998.

Brecke, P., and Long, W. J., "War and Reconciliation," International Interactions, Vol. 25, No. 2, (1999), pp. 95-117.

Brecke, P., "Simulation of the Steps to War: Classification of Violent Conflicts a Necessary Prerequisite," Simulation, Vol. 72, No. 1 (January 1999), pp. 52-58.

Long, W. J., and P. Brecke, "The Emotive Causes of Recurrent International Conflicts," Politics and the Life Sciences, Vol. 22, No. 1 (March 2003), pp. 24-35.

Zhang, D., Brecke, P., Lee, H., He, Y., Zhang, J., "Global Climate Change, War, and Population Decline in Recent Human History," Proceedings of the National Academy of Sciences, Vol. 104, No. 49 (December 4, 2007), pp. 19214-19219.

Lee, H.F., Zhang, D.D., Brecke, P., and Fei, J., "Positive Correlation between the North Atlantic Oscillation and Violent Conflicts in Europe". *Climate Research* 56(1): 1-10. (2013), Amelinghausen: Inter-Research.

Lee, H.F., Zhang, D.D., Brecke, P., and Pei, Q., "Regional Geographic Factors Mediate the Climate-War Relationship in Europe". *British Journal of Interdisciplinary Studies* [accepted for publication]

### **Other Publications**

Choucri, N. with Brecke, P., "Migration in the Middle East: Transformations, Policies and Processes," Vols. I and II, Technology Adaptation Program Report No. 83-3, Cambridge, Massachusetts: Massachusetts Institute of Technology (1983).

Brecke, P., "Who Wins and Who Loses from Protectionism," IIVG Discussion Paper, IIVG/dp 85-103, West Berlin: International Institute for Comparative Social Research (1985).

Biggs, S. E. and Brecke, P., "Global Modeling and Soviet Strategic Net Assessment, Vol. II: The Soviet Global Model: Technical Report," Prepared for the Office of the Secretary of Defense/Net Assessment, Contract MDA903-86-C-0307 (June 23, 1988).

Biggs, S. E. and Brecke, P., "Global Modeling and Soviet Strategic Net Assessment, Vol. III: The Soviet Global Model: Algorithms," Prepared for the Office of the Secretary of Defense/Net Assessment, Contract MDA903-86-C-0307 (June 23, 1988).

Biggs, S. E. and Brecke, P., "Global Modeling and Soviet Strategic Net Assessment, Vol. IV: A Soviet Model of the U.S.S.R. National Economy," Prepared for the Office of the Secretary of Defense/Net Assessment, Contract MDA903-86-C-0307 (April 20, 1989).

Brecke, P., "Status of the Project to Build a Computerized Database and Early Warning System for ORCI," Prepared for the Office for Research and the Collection of Information, United Nations (January 4, 1990).

Beaulieu, D., Brecke, P., Pauls, C., Rawsthorne, D. and Rodgers, A., "Roadmap Methodology Document," Prepared for the U.S. Department of Energy, Environmental Restoration and Waste Management (May 15, 1991).

Beaulieu, D. and Brecke, P., "Roadmap Information System User's Manual," Prepared for the U.S. Department of Energy, Environmental Restoration and Waste Management (June 1, 1991).

Brecke, P., "Plan for ORCI Early Warning System," Prepared for the Office for Research and the Collection of Information, United Nations (September 1991).

Duffy, G., T. R. Gurr, P. A. Schrod, G. Mayer-Kress, and P. Brecke, "An Early Warning System for the United Nations: Internet or Not?" Mershon International Studies Review, Vol. 39, Supplement 2, pg. 315-326, October 1995.

Brecke, P., "Using Neural Networks to Find Harbingers of Violent Conflicts in Descriptions of Country Situations," published in the Working Papers series of the Georgia Consortium on Negotiation and Conflict Resolution. Atlanta. Paper 95-3 (September 1995).

Brecke, P., "Conflict Alert Systems and Conflict Prevention," published in the Working Papers series of the Georgia Consortium on Negotiation and Conflict Resolution. Atlanta. Paper 96-4 (November 1996).

Goodrich, J. W. and Brecke, P., "Paths from Environmental Change to Violent Conflict," published in the Working Papers series of the Georgia Consortium on Negotiation and Conflict Resolution. Atlanta. Paper 96-8 (November 1996).

Brecke, P., "Using Pattern Recognition to Identify Harbinger Configurations of Early Warning Indicators," WZB Papers, Wissenschaftszentrum Berlin, Berlin, Germany, WZB P 97 - 304 (September 1997).

Brecke, P. and Long, W. J., "War and Reconciliation," published in the Working Papers series of the Georgia Consortium on Negotiation and Conflict Resolution. Paper 98-1 (August 1998).

Brecke, P. "Risk Assessment Models and Early Warning Systems." Discussion papers//Wissenschaftszentrum Berlin fuer Sozialforschung (WZB), Beim Praesidenten: Arbeitsgruppe Internationale Politik, No. P 00-302 (2000).

Ganguly, A., Whitmeyer, J., Omitaomu, O., Hadzikadic, M., Gilman, P., Brecke, P., Khouja, M., Fernandez, S., Eichelberger, C., Mclean, T., Jiao, C., Middleton, E., Carmichael, T., Saric, A., Sun, M. "Toward a Characterization and Systematic Evaluation Framework for Theories and Models of Human, Social, Behavioral, and Cultural Processes." DARPA Foundation "Task 6" Report, Systematic Evaluation Framework. (2008).

Brecke, P. and Chaudhary, T. with Stulberg, A. "Examining the Contagion of Radical Terrorism: Towards an Agent-Based Model of the Spread of Ideas within Terrorist Networks." Paper prepared for the Director, Office of the Secretary of Defense/Net Assessment, Joint Management Services, LLC contract Number HQ0034-11-0044 (August 8, 2012).

Fajebe, A., Brecke, P. Impacts of External Shocks in Commodity-Dependent Low-Income Countries: Insights from mobile phone call detail records from Cote D'Ivoire, paper prepared for the Orange (Telecom) Data for Development (D4D) competition (March 2013).

### **Selected Presentations**

Brecke, P., "Using Pattern Recognition to Find Harbingers of Violent Conflicts in Descriptions of Country Situations," at the Annual Meeting of the Peace Science Society (International), Columbus, Ohio, October 13-15, 1995.

Brecke, P., "Beyond Typologies: A Taxonomy of Violent Conflicts," The International Studies Association Annual Convention, Toronto, March 18-22, 1997.

Brecke, P., "The Power of Large N: A Preliminary Analysis of 2176 Violent Conflicts," The International Studies Association Annual Convention, Minneapolis, March 17-21, 1998.

Brecke, P., "Violent Conflicts 1400 A.D. To the Present in Different Regions of the World," Annual Meeting of the Peace Science Society (International), Ann Arbor, MI, October 8-10, 1999.

Brecke, P., "Moving Away from the Eurocentric Bias in the Study of Warfare," Annual Meeting of the International Studies Association, Los Angeles, March 14-18, 2000.

Brecke, P., "Conflicts in South Asia and What They Contribute to Our Knowledge of the Role of System Structure on Violent Conflict," Annual Meeting of the International Studies Association, Chicago, March 20-24, 2001.

Brecke, P., "Long-Term Patterns of Violent Conflict in Different Regions of the World," Uppsala Conflict Data Conference, Uppsala, Sweden, June 8-9, 2001.

Brecke, P., "System Structure and Violent Conflict: Evidence from Asian State Systems," Annual Meeting of the Peace Science Society (International), Atlanta, GA, October 26-28, 2001.

Brecke, P., "Relative Capabilities and Power Cycles," Annual Meeting of the American Political Science Association, Boston, August 29-September 1, 2001.

Brecke, P., "Power Parity, Power Preponderance, and Violent Conflict," Annual Meeting of the Peace Science Society (International), Houston, TX, November 12-14, 2004.

Brecke, P., "A Measure of Country Power, 1500-1945 AD," 46<sup>th</sup> Annual Convention of the International Studies Association, Honolulu, HI, March 1-5, 2005.

Brecke, P., "Global Models and Democracy 2.0," First Global International Studies Conference, Istanbul, August 24-27, 2005.

Brecke, P., "Design of the Next Generation Social Global Model," 2006 International Conference for Complex Systems, Boston, MA, June 29-July 1, 2006.

Brecke, P., "What Social Global Modelers can Learn from the Climate Global Modeling Initiative," 2010 Annual Convention of the International Studies Association, New Orleans, LA, February 17-20, 2010.

Brecke, P., "Simulating the Spread of Ideas in an Agent-based Model," International Conference on Behavioral Decision Making," Herzliya, Israel, May 30-June 1, 2011.

Brecke, P., "Linking Earth Systems Models to Social Population Agent Based Models Through Geography," First Workshop on Understanding Climate Change Through Data," University of Minnesota, Minneapolis, August 15-16, 2011.

Brecke, P., "Democracy 2.0: An Example of a CyberPolitical Governance Form," Workshop on People, Power, and CyberPolitics, Massachusetts Institute of Technology, Cambridge, December 7-8, 2011.

Lee, H. F., D. Zhang, P. Brecke. "Regional geographic factors mediate the climate-war relationship in Europe," 2013 Annual Convention of the International Studies Association, San Francisco, CA, April 3-6, 2013.

Brecke, P. "The Role of Amazons in Establishing a Foundation for Modern Representative Democracy," paper prepared for the MPSA 2014 Conference, Chicago, April 3-6, 2014.

**Reviewer for:**

- International Studies Quarterly
  - Southeastern Political Review
  - Journal of Conflict Resolution
  - Conflict Management and Peace Science
  - International Interactions
  - Contemporary Sociology: A Journal of Reviews
  - Journal of Personality and Social Psychology
  - Contemporary Security Policy
  - Encyclopedia of Social Measurement
  - Journal of Peace Research
  - Climatic Change
- Book manuscript reviewer for MIT Press

**Grant or Contract as Principal or Co-Principal Investigator**

United States Institute of Peace, Identifying Configurations of Early Warning Indicators, \$45,796, September 1994 - June 1995.

Consortium for Negotiation and Conflict Resolution, Identifying Configurations of Early Warning Signs, \$6,100, September 1994 - April 1996.

Frances Wood Wilson Foundation, Technology Classroom, \$100,000, July 1998 - June 2000.

Georgia Tech Foundation, Teaching Improvement Grant, \$1,500, 2001.

Ivan Allen College, Undergraduate Student Research Grant, \$1,500, 2001.

Georgia Tech Technology Fee Fund, Habersham Computing Equipment and Software, \$63,500, November 2003 - June 2004.

Georgia Tech Technology Fee Fund, Habersham Computing Equipment and Software, \$25,200, August 2004 - June 2005.

Georgia Tech Technology Fee Fund, Habersham Computing Software, \$8,360, August 2005 - June 2006.

Defense Advanced Research Projects Agency (DARPA), Actionable Capability for Socio-Economic Systems, \$70,000, August 2007-April 2008.

Science Applications International Corporation, Using Epidemiological Simulation Models as a Starting Point for a Computer Simulation Model of the Spread of Ideas Such as Attitudes or Beliefs Through a Population, \$25,000, September 2008 - January 2009.

**Grant or Contract as Investigator**

Office of the U.S. Secretary of Defense/Net Assessment, Global Modeling and Soviet Strategic Net Assessment, \$300,000, October 1986-April 1989.