

# G. Jiyun Kim

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## EDUCATION

UNIVERSITY OF MICHIGAN, Ann Arbor, MI.

Ph.D.: Political Science, December 2006.

Dissertation: *The Nature and the Timing of Political Stabilization*.

Committee: James Morrow (Chair), Robert Axelrod, Robert Franzese, Scott Page, and Daniel Silverman (Economics).

Major Fields: Comparative & World Politics (IR) and Modeling & Simulation.

Graduate Certificate: Complex Systems, December 2006.

M.A.: Political Science, June 2005.

Passed Preliminary Exams in Comparative and American Politics: May 2002.

YALE UNIVERSITY, New Haven, CT.

B.A.: Ethics, Politics, and Economics (EP&E) and International Studies (IS) (with distinction), June 1999.

EP&E thesis advisor: Ian Shapiro.

IS thesis advisor: Frances Rosenbluth.

Graduated *Cum Laude*.

## EMPLOYMENT

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA.

Postdoctoral Researcher, Department of Electrical and Systems Engineering, April 2007 – May 2009.

Research Associate, Ackoff Collaboratory, April 2007 – May 2009.

## RESEARCH

### A. RESEARCH AREAS

Comparative Politics: Political Transitions, Political Instability, State Failure, Political Economics, and Artificial Political Systems (Virtual Countries).

World Politics (IR): Conflict Resolution, Political Violence, Civil War, Foreign Policy, Conflict Forecasting, and Northeast Asian Security.

Region: Developing Countries, Asia (two Koreas, Japan, China, Thailand, and Pakistan), Africa (South Africa and Sub-Saharan Africa), and USA.

### B. RESEARCH METHODS

Modeling (Formal/Game-theoretic and Agent-based) and Simulation, Systems / Knowledge Engineering (Expert Systems and Artificial Intelligence), Edutainment, Case Studies, and Large N Quant.

### C. PUBLICATIONS

1. Silverman, Barry G., Gnana K. Bharathy, and G. Jiyun Kim. (forthcoming 2008). "Challenges of Country Modeling with Databases, Newsfeeds, and Expert Surveys," in *Agents, Simulation and Applications*, Adelinde Uhrmacher and Danny Weyns, eds. Taylor and Francis.
2. Silverman, Barry G., Gnana K. Bharathy, Benjamin Nye, G. Jiyun Kim, Mark Roddy, and Mjumbe Poe. (forthcoming 2009). "State and Sub-State Actors: Synthesizing Theories Across the Social Sciences," in *Estimating Impact: A Handbook of Computational Methods and Models for Anticipating Economic, Social, Political and Security Effects in International Interventions*, Alexander Kott, ed. Springer.
3. G. Jiyun Kim. "Political Stabilization in Transitional Conflicts." (under review)

### D. DISSERTATION

G. Jiyun Kim. *The Nature and the Timing of Political Stabilization*. Ph.D. dissertation, University of Michigan.

*Why and when* do contending groups negotiate or resort to the use of force to end various transitional conflicts (democratic and non-democratic extrications, coups, crackdowns, revolutions, and civil wars)? Viewing transitional conflicts as "wars of attrition" with two exit options of making concessions and using decisive force, I derive a theory of transitional dynamics from solving an incomplete information, infinite horizon, continuous type and time war of attrition game with two outside options. More broadly, by analyzing the focal equilibrium of the model and by examining five episodes of transitional conflicts in South Africa (1948 – 1991) and South Korea (1980 – 1987) as illustrative case studies, this research finds that economic development is conducive to *less violent* and *shorter* conflict processes, in addition to favoring democratic outcomes. The research also makes clear the *precise strategic role* of such moves as building military forces or housing settlements in an area even when the area's long-term indefensibility is known. In addition, I identify the *danger zone* for third party military interventions and point out the problems with using *economic diplomacy* to promote shorter and less painful transitional conflicts.

### PRESENTATIONS OF RESEARCH RELATED TO DISSERTATION

Invited Speaker at the Georgia Institute of Technology, November 2007 (Atlanta, GA).

"Political Stabilization in Transitional Conflicts." (Informational Talk)

Midwest Political Science Association, April 2007 (Chicago, IL).

"Transitional Conflicts in South Africa and South Korea." (Paper)

"Third Party Interventions in Civil Conflicts." (Poster)

Invited Speaker at the University of Pennsylvania, March 2007 (Philadelphia, PA).

"Political Stabilization in Transitional Conflicts." (Informational Talk)

International Studies Association, March 2007 (Chicago, IL).

"The Timing and the Nature of Political Stabilizations in Civil Conflicts." (Paper)

American Political Science Association, August 2006 (Philadelphia, PA).

- “Political Conflicts in the Shadow of Violence.” (Poster)
- Midwest Political Science Association, April 2006 (Chicago, IL).  
 “Political Conflicts in the Shadow of Violence.” (Paper)
- Comparative Speaker Series at the University of Michigan, March 2006 (Ann Arbor, MI).  
 “Transitional Conflicts in South Africa and South Korea.” (Paper)
- Internal Seminar Series at the University of Michigan, February 2006 (Ann Arbor, MI).  
 “Transitional Conflicts in South Africa and South Korea.” (Paper)
- Internal Seminar Series at the University of Michigan, October 2005 (Ann Arbor, MI).  
 “Political Conflicts in the Shadow of Violence.” (Paper)
- American Political Science Association, August 2005 (Washington, D.C.).  
 “Political Transitions in the Shadow of Civil War.” (Poster)  
 “Political Wars of Attrition.” (Poster)
- Midwest Political Science Association, April 2005 (Chicago, IL).  
 “Political Wars of Attrition.” (Paper)
- International Studies Association, March 2005 (Honolulu, HI)  
 “Third Party Interventions in Regime Shifts.” (Paper)
- Comparative Speaker Series at the University of Michigan, March 2005 (Ann Arbor, MI).  
 “Political Wars of Attrition.” (Paper)
- American Political Science Association, August 2004 (Chicago, IL).  
 “Modeling and Testing Regime Shifts.” (Paper)
- Midwest Political Science Association, April 2004 (Chicago, IL).  
 “Third Wave Revisited: Modeling and Testing Transitions to Democracy.” (Paper)
- Midwest Political Science Association, April 2001 (Chicago, IL).  
 “South Korean Democratic Transition from a Game-Theoretic Perspective.” (Paper)

## **E. RESEARCH IN PROGRESS**

1. “Monitoring, Assessing, and Forecasting Political Instability Using FactionSim/PMFserv: 12 Virtual Asian Countries.”  
 (with Barry Silverman, Gnana Bharathy, and Lockheed Martin)

Project in progress to develop a comprehensive, integrated, and validated system to monitor, assess, and forecast national and sub-national crises in a way that supports decisions on how to allocate resources to mitigate them. Twelve artificial/virtual Asian countries (Bangladesh, Burma, China, Fiji, Indonesia, Pakistan, Philippines, Sri Lanka, Thailand, Two Koreas, and Vietnam) are under construction using this system. This project has been supported by AFOSR (Air Force Office of Scientific Research) and DARPA (Defense Advanced Research Projects Agency).

## PRESENTATIONS OF RELATED RESEARCH

American Political Science Association, August 2008 (Boston, MA).

“Monitoring, Assessing, and Forecasting Political Instability.” (Paper)

Society for Political Methodology, July 2008 (Ann Arbor, MI).

“Monitoring, Assessing, and Forecasting Political Instability.” (Poster)

Midwest Political Science Association, April 2008 (Chicago, IL). (Paper)

“Model(s) of Stability.” (Paper)

“Monitoring and Forecasting Crises.” (Paper)

VIPCAT Conflict Processes Summit at the University of Georgia, January 2008 (Athens, GA).

“Monitoring, Assessing, and Forecasting Political Instability.” (Informational Talk)

2. “Monitoring, Assessing, and Forecasting International Crises Using Athena and FactionSim/PMFserv: Part I- The Case of the North Korean Nuclear Crisis.”

(with Barry Silverman, Kevin Knight, and Sean O’Hara)

Project in progress to develop an agent-based model of international relations on top of our virtual countries in order to monitor, assess, and forecast international crises in a way that supports decisions on how to allocate resources to mitigate them. We are currently focusing on one particular international crisis of interest to our sponsoring agency (DARPA): the Six Party Talks concerning the North Korean nuclear weapons program (involving the two Koreas, US, China, Japan, and Russia).

3. “Penn Conflict Database.”

(with Barry Silverman, Gnana Bharathy, IndaSea Inc., and KEDS)

Project in progress to develop a comprehensive conflict database to empirically validate the joint FactionSim/PMFServ framework. In addition to extending and improving some existing databases with information on relevant faction identification, relative alignment, and all the relative resource estimates, original data collection through expert surveys and automated content analyses is underway to collect information on the socio-cognitive / psychological profiles of leaders and followers of contending factions.

4. “The US-North Korean Nuclear Bargaining.”

(with Bara Kim)

Project in progress to develop a timing game framework (a combined attrition and preemption game) to analyze the standoff (and occasional escalation) between the US and North Korea.

5. “The Puzzling Persistence of Semi-Permanent Refugee Camps.”

(with David Backer and Devra Moehler)

Project in progress to address the question of why ostensibly temporary refugee populations endure despite an apparent consensus among all key stake-holders for implementing durable solutions.

6. “An Agent Based Model of Social Movements.”

Paper submitted in partial fulfillment of the requirements for the degree of Master of Arts in Political Science in the University of Michigan, 2005.

7. “An Agent Based Model of Public Opinion Dynamics.”

Paper submitted in partial fulfillment of the requirements for the Graduate Certificate in Complex Systems in the University of Michigan, 2002.

## **OTHER RESEARCH EXPERIENCE**

2003, University of Michigan: Jennifer Widner’s “USIP Constitutions” project.

2002, University of Michigan: James Morrow’s “Laws of War” project.

2001, University of Michigan: Jennifer Widner’s “Comparative Politics Databank” project.

2000, University of Michigan: Ronald Inglehart’s “World Values Survey.”

1998-1999, Yale University: Ian Shapiro’s “Democratic Justice” project.

## **GRANTS AND FELLOWSHIPS**

### **AWARDED / FUNDED:**

ICEWS International Crisis Module: DARPA / Lockheed Martin. August 2008.

Rackham One-Term Dissertation Fellowship: University of Michigan. Fall 2005.

Rackham Social Science Research Award: University of Michigan. Summer 2003.

Rackham Travel Grants: University of Michigan. 2003, 2004, 2005, and 2006.

International Institute SLI Fellowship: University of Michigan. Summer 2000.

Departmental Fellowship: University of Michigan. Fall 1999 – Winter 2000.

### **PROPOSED / UNDER REVIEW:**

“Socio-Cognitive Agent-Based Modeling of Terrorist Recruitment Theories,” START/DHS, 2007 (coauthor with Barry Silverman).

“Socio-Cognitive Agent-Based Modeling of Sub-National Conflicts,” START/DHS, 2007 (coauthor with Barry Silverman).

“Socio-Cultural Modeling for Understanding Asymmetric Threat Environment,” Office of Naval Research, 2007 (coauthor with Barry Silverman).

## **TEACHING EXPERIENCE**

GRADUATE STUDENT INSTRUCTOR  
University of Michigan, Ann Arbor, MI.

Comparative Foreign Policy, Fall 2005 (with William Zimmerman).

Introduction to American Politics, Winter 2005 and Winter 2006 (with Arthur Lupia, Vincent Hutchings, and Kenneth Kollman).

Introduction to Comparative Politics, Fall 2001 (with Ronald Inglehart) and Fall 2004 (with Meredith Jung-En Woo).

Public Opinion and Pressure Groups, Fall 2003 (with Christopher Achen).

Media and Pressure Groups, Winter 2003 (with Vincent Hutchings).

Public Opinion and Mass Media, Winter 2003 (with Ted Brader).

Theories of International Relations, Fall 2002 (with James Morrow).

American Political Process, Fall 2000 (with Margaret Howard) and Fall 2002 (with Vincent Hutchings).

Contemporary Political Philosophy, Winter 2001 (with Claudia Ritter).

American Political Thoughts, Fall 2000 (with Anne Manuel).

#### TEACHING ASSISTANT

Inter-University Consortium for Political and Social Research (ICPSR) Summer Program, University of Michigan, Ann Arbor, MI.

Game Theory, Summer 2006 and Summer 2007 (with Dean Lacy).

## **RELATED WORK EXPERIENCE**

#### COMPUTING CONSULTANT

The Inter-University Consortium for Political and Social Research (ICPSR). University of Michigan. Ann Arbor, MI. Summer 2004, 2005, 2006, and 2007.

#### COMPUTING AND STATISTICAL CONSULTANT

Department of Political Science. University of Michigan. Ann Arbor, MI. Fall 2003 and Winter 2004.

#### SPEECHWRITER

The South Korean Mission to the United Nations. New York, NY. 1998.

## **SKILLS**

*Statistical / Mathematical Software:* STATA, SAS, SPSS, E-Views, Mathematica, and Matlab.

*Simulation Package:* Athena, PMFServ, FactionSim, Swarm, and Repast.

*Language:* Bilingual in English and Korean, proficient in Spanish, and elementary Japanese.

## **PROFESSIONAL AFFILIATIONS**

Member, American Political Science Association.

Member, Midwest Political Science Association.

Member, Peace Science Society (International).

Member, International Studies Association.

## **SERVICE**

Reviewer, Taylor and Francis.

## **PERSONAL**

Citizenship: USA.

County of birth: Republic of Korea.

Marital status: Single.

Sex: Male.

Age: 32.

Full name: Geofferey Jiyun Kim.

Also known as: Ji Kim, Ji Yun Kim, Jeff Kim, G. Kim and Geoff Kim.

Preferred appellation: Jeff Kim

## **REFERENCES**

James D. Morrow

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University of Michigan  
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Ann Arbor, MI 48106-1248  
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