

Escuela de Primavera Modelos de Crisis Núcleo Milenio Modelos de Crisis

Iniciativa Científica Milenio
Universidad Adolfo Ibáñez

Viña del Mar, 28, 29 y 30 de octubre 2015

Organizado por Núcleo Milenio Modelos de Crisis
Universidad Adolfo Ibáñez
<http://mileniocrisis.uai.cl>

Colaboración institucional de:
Escuela de Gobierno, Universidad Adolfo Ibáñez
Facultad de Ingeniería y Ciencias, Universidad Adolfo Ibáñez
Iniciativa Científica Milenio, Instituto de Sistemas Complejos de Valparaíso
Magister en Análisis Sistémico Aplicado a la Sociedad de la Universidad de Chile
Explora Valparaíso

En la última década se ha expandido en Chile el diagnóstico de crisis para describir problemas en diversos ámbitos. Se habla de crisis de legitimación, política, ambiental, energética, educativa, financiera, en transporte. Esto parece ser un rasgo immanente de sociedades complejas. Las crisis son sistemas dinámicos que no pueden ser reducidos a enfoques simplificantes, teorías singulares o métodos unilaterales. Si aspiramos a entender la profunda incertidumbre que surge de las crisis sociales, necesitamos un enfoque interdisciplinario, una combinación de teorías distintas e incluso contradictorias, y una mezcla heterodoxa de métodos de investigación social clásicos y de vanguardia.

El objetivo central de la Primera Escuela de Primavera Modelos de Crisis es entregar esta comprensión integrada e interdisciplinaria de situaciones de crisis social en Chile. El programa de la Escuela se compone de varias sesiones realizadas, en español o inglés, por miembros del Núcleo Milenio Modelos de Crisis e invitados internacionales. El detalle del programa es el siguiente.

Programa

Miércoles 28 de Octubre

Universidad Adolfo Ibáñez, Campus Viña del Mar, Sala D-311

- 11.00-11.45 Inscripción de participantes
- 11.45-12.30 Bienvenida Aldo Mascareño y Andrea Repetto, Investigadores Responsables del Núcleo Milenio Modelos de Crisis. Presentación del Equipo de Investigadores de la Escuela de Primavera
- 12.30-13.30 Sistemas complejos
Eric Goles
- 13.30-14.30 Pausa
- 14.30-15.30 Sistemas biológicos complejos
Sylvain Sené



- 15.30-16.30 Crisis en sistemas sociales complejos
Aldo Mascareño
- 16.30-17.00 Pausa
- 17.00-18.00 Modelamiento y simulación de crisis en ciencias sociales
Mauricio Salgado
Gonzalo Ruz
- 18.00-19.00 Crisis y crítica en ciencias sociales
Rodrigo Cordero
- 19.00-20.00 Encuentro de bienvenida

Jueves 29 de Octubre

Universidad Adolfo Ibáñez, Campus Viña del Mar, Sala D-311

- 9.00-9.45 Café
- 9.45-11.10 Social complexity in the school system I
Eric Bettinger
- 11.10-11.30 Pausa
- 11.30-12.40 Social complexity in the school system II
Eric Bettinger
- 12.40-14.00 Pausa
- 14.00-15.00 Humanidades y crisis en la educación
Daniel Loewe
- 15.00-16.00 Modelos de segregación y estratificación en la educación en Chile
Andrea Repetto
Sergio Rica
Raimundo Sánchez
- 16.00-16.30 Pausa
- 16.30-17.30 Análisis de clusters con datos históricos de la educación pública en Chile
Francisca Rengifo
Gonzalo Ruz
- 17.30-18.30 Experiencias de crisis en la educación en Chile
Gabriela Azócar
Bernardita Navarro

Viernes 30 de Octubre

Universidad Adolfo Ibáñez, Campus Viña del Mar, Sala D-311

- 9.00-9.45 Café
- 9.45-11.10 Propagation of riots I
Jean-Pierre Nadal
- 11.10-11.30 Pausa
- 11.30-12.40 Propagation of riots II
Jean-Pierre Nadal
- 12.40-13.00 Cierre
Aldo Mascareño, Investigador Responsable Núcleo Milenio Modelos de Crisis

Invitados

Eric Bettinger is PhD Economics (Massachusetts Institute of Technology, USA). He is Associate Professor of Economics, Stanford Graduate School of Business, and Faculty Research Fellow, National Bureau of Economic Research. He teaches Economics of Higher Education at the Stanford Graduate School of Business. His main publications on the topic are How do vouchers work? Evidence from Colombia (Economic Journal, 2010), Improving College Performance and Retention the Easy Way (American Economic Journal: Economic Policy, 2013), The Effects of Student Coaching (Educational Evaluation and Policy Analysis, 2015).

Jean-Pierre Nadal is PhD in Physics (University Paris XI). He is Directeur de Recherche au CNRS & Directeur d'Etudes à l' *École des Hautes Études en Sciences Sociales*. His earliest research works are in the domain of the statistical physics of disordered systems. He has also addressed issues in the related fields of machine learning (theoretical and practical algorithmic aspects within the supervised learning framework), statistical inference, data analysis (in particular in bioinformatics) and signal processing (notably working on blind source separation and independent component analysis). Since 2002, he works on collective phenomena in economic and social sciences. His recent publications are A model of riots dynamics: Shocks, diffusion and thresholds (Networks and Heterogeneous Media, 2015), Modeling urban housing market dynamics: can the socio-spatial segregation preserve some social diversity? (Journal of Economic Dynamics and Control, 2013).

Sylvain Sené is PhD Informatique (University of Grenoble, France). He is Full Professor at Aix-Marseille University (AMU) and teaches at the Computer Science Department of the University. He performs his research activities as a permanent member of the LIF, the Fundamental Computer Science Lab, and as an associate member of IXXI, the Rhône-Alpes Complex Systems Institute. His research interests are theoretical biology (genetic regulation networks, neural networks), theoretical computer science, and computational properties of automata networks. His last publications are Automates cellulaires et réseaux d'automates (Lavoisier, 2015), Méthodes informatiques en biologie (Lavoisier, 2014), About non-monotony in Boolean automata networks (Theoretical Computer Science, 2013).

Investigadores Núcleo Milenio Modelos de Crisis

Aldo Mascareño is PhD in Sociology (University of Bielefeld, Germany). He is Professor of Sociology at the School of Government, University Adolfo Ibáñez, Santiago de Chile, Academic Director of the PhD Program in Political Processes and Institutions at the same University, and Principal Investigator of the Millennium Nucleus Models of Crises. He teaches sociological theory and theory of crises. His current research interests include contemporary sociological theory, sociology of law, Latin American sociology, and systems theory. His main publications are *Die Moderne Lateinamerikas Weltgesellschaft, Region und funktionale Differenzierung* (transcript Verlag 2012), *Diferenciación y contingencia en América Latina* (Ediciones UAH 2010), and he is co-editor of *Niklas Luhmann y el legado universalista de su teoría* (RIL Editores 2012), *Durch Luhmanns Brille* (Springer Verlag 2012), and *Legitimization in World Society* (Ashgate Publishing 2012). Also forthcoming are his translations into Spanish of Niklas Luhmann's books *Die Wirtschaft der Gesellschaft* (La economía de la sociedad, Herder 2015).

Andrea Repetto is PhD in Economics (Massachusetts Institute of Technology, USA). She is Professor of Economics at the School of Government, University Adolfo Ibáñez, Santiago de Chile, Academic Director of the Master Program in Economics at the same University, and Second Principal Investigator of the Millennium Nucleus Models of Crises. She teaches behavioral economics and econometrics. Her current research interests focuses on applied economics and psychology, on the evaluation of social policies and on labor economics. Some of her main recent publications are *The Effectiveness of Private Voucher Education: Evidence from Structural Switches* (Educational Evaluation and Policy Analysis, 2011 with B.Lara and A.Mizala), *Using School Scholarships to Estimate the Effect of Private Education on Academic Achievement in Chile* (Economics of Education Review, 2009 (with P. Anand and A. Mizala), and *The Hyperbolic Consumption Model: Calibration, Simulation, and Empirical Evaluation* (Journal of Economic Perspectives, 2001, with M. Angeletos, D. Laibson, J. Tobacman and S. Weinberg).

Eric Goles is PhD in Engineering and Mathematics (University of Grenoble, France), and Chilean National Prize in Exact Sciences (1993). He is Professor at the Faculty of Engineering and Sciences, University Adolfo Ibáñez, Santiago de Chile, Director of the PhD Program in Complex Systems at the same University, and Senior Researcher of the Millennium Nucleus Models of Crises. His current research interests include mathematical modeling, complexity, theoretical computer science and automata networks. He is the author of about 180 papers and 10 books.

Rodrigo Cordero is PhD in Sociology (University of Warwick, UK). He is an Associate Professor at the Faculty of Social Sciences and History, University Diego Portales, Santiago de Chile, and Adjunct Investigator of the Millennium Nucleus Models of Crises. His current research interests include sociology of concepts and conceptual change, moments of crisis, rupture and foundation, and critical theory. He teaches contemporary social theory and critical theory. He has recently published on these topics in the *European Journal of Social Theory* (2014) and the *European Journal of Cultural and Political Sociology* (2014); co-editor of a special issue on Hannah Arendt's *On Revolution*. He is completing the book *Crisis and Critique: A Theory of Social Disruptions* (Routledge, 2016) and preparing the translation into Spanish of Robert Fine's book *Political Investigations: Hegel, Marx, Arendt* (Ediciones UDP, 2015).

Daniel Loewe is PhD in Philosophy (University of Tübingen, Germany). He is Professor of Political Philosophy at the School of Government, University Adolfo Ibáñez, Santiago de Chile, and Associate Researcher of the Millennium Nucleus Models of Crises. He teaches political philosophy and theory of justice. His current research interests include multiculturalism, environmental and animal ethics, equality, enhancement, international migration, happiness economics, and public philosophy. He is the

author of *Multiculturalismo e Direitos Culturais* (Educs, 2013), editor of *La justicia en un mundo globalizado*, de Ottfried Höffe (UAI, 2010), and of several scientific papers on theory of justice and philosophy.

Mauricio Salgado is PhD in Sociology (University of Surrey, UK). He is a Research Fellow and Associate Professor of sociology, formalization and simulation of social dynamics at the School of Sociology, Faculty of Humanities and Social Sciences, Universidad Andrés Bello (Santiago de Chile), and Young Researcher of the Millennium Nucleus Models of Crises. His current research interests include analytical and computational sociology, evolutionary game theory, the methodology of computer simulation (especially agent-based modeling), and experimental methods in the social sciences. He teaches quantitative research methods and economic sociology. His work on computational sociology and agent-based modeling has been published in several books and scientific journals, such as the *Journal of Archaeological Methods and Theory*, the *Journal for the Theory of Social Behaviour*, the *Journal of Artificial Societies and Social Simulation*, and *Advances in Complex Systems*.

Gonzalo Ruz holds a PhD in Machine Learning (Cardiff University, UK). He is an Associate Professor at the Faculty of Engineering and Sciences, University Adolfo Ibáñez, Santiago de Chile, Academic Manager of the PhD Program in Complex Systems at the same University, and Associate Researcher of the Millennium Nucleus Models of Crises. He teaches Probabilities and Business Intelligence at undergraduate level, and Data Management and Analysis at postgraduate level. His current research interests include machine learning, Bayesian networks, neural networks, Boolean networks, gene regulatory networks, evolutionary computation, and neuro-fuzzy systems. He has published more than 30 scientific papers (journals and conference proceedings).

Sergio Rica is PhD in Physics (University of Nice Sophia-Antipolis, France). He is Professor of Physics at the Faculty of Engineering and Sciences, University Adolfo Ibáñez, Santiago de Chile, researcher of the Centre de la Recherche Scientifique, France, and Associate Researcher of the Millennium Nucleus Models of Crises. He has contributed to a large variety of problems in nonlinear physics, from the interaction of defects, pattern formation, models of superfluidity to the kinetics and thermodynamics of Bose-Einstein condensation, theory of supersolidity and wave turbulence theory. His current research interests include the wave turbulence theory of dispersive weakly nonlinear waves, discrete models on statistical physics and social models. He is the author of about 80 scientific publications and co-editor of *Instabilities and Non-equilibrium Structures IX*, Kluwer Academic Publishers (Dordrecht 2004).

Raimundo Sánchez is Doctor candidate in Engineering in Complex Systems at Universidad Adolfo Ibáñez, Chile. He is Associate Professor at the Faculty of Engineering and Sciences and Researcher of the Center of Territorial Intelligence at the same University.

Francisca Rengifo is PhD in History (Universidad Católica de Chile). She is an Associate Professor at the School of Government, Researcher at the Centro de Estudios de Historia Política, University Adolfo Ibáñez, Santiago de Chile, and Adjunct Researcher of the Millennium Nucleus Models of Crises. She teaches Latin American and Chilean History. She specialises on the history of women, family and divorce, and education in Chile. Her current research interests include the history of the State and social policies in Chile during the 19th and 20th centuries. Her main publications are *Historia de la Educación en Chile (Vol. I): Aprender a leer y escribir (1810-1880)* and *(Vol. II) La educación nacional (1880-1930)* (Taurus 2012) as co-author, and she is also author of *Vida conyugal, maltrato y abandono. El divorcio eclesiástico en Chile, 1850-1890* (Universitaria, 2011).

Gabriela Azócar is Master in Government and Society (Universidad Alberto Hurtado, Chile). She is

Assistant Professor at the Department of Sociology, Universidad de Chile, Santiago de Chile, and Academic Manager of the Millennium Nucleus Models of Crises. She has worked as Academic Manager of undergraduate and graduate programs at Universidad de Chile and University Alberto Hurtado. Her research interests are quantitative research methods and evaluative research of public policies. She is author of the papers *Hacia la delimitación de un marco teórico conceptual para la investigación evaluativa* and *La observación de las políticas públicas como espacios de vinculación de complejidad*. Forthcoming is her PhD Thesis *Las transformaciones de la política de vivienda en Chile. Del acceso material a la inclusión funcional* (Universidad Alberto Hurtado).

Bernardita Navarro is Master in Economics and Public Policy (Universidad Adolfo Ibáñez, Chile). She is an Assistant Lecturer at the School of Government, University Adolfo Ibáñez, Santiago de Chile, and Young Researcher of the Millennium Nucleus Models of Crises. She teaches Industrial Organization and is assistant lecturer of courses Sociology and Political Economy Seminar. In 2014 she has been awarded with a research stay at Freie Universität Berlin, Germany. Her current research interests include tax structure and tax incentives, Latin American sociology and contemporary sociological theory. She is author of *Orientación política en las finanzas globales* (Master Thesis, Escuela de Gobierno, Universidad Adolfo Ibáñez, 2013).

Consultas e inscripciones

Se entregará becas de mantención a los participantes. La entrega de esta beca está limitada sólo a estudiantes que se comprometan a asistir a todas las actividades de la Escuela de Primavera.

Inscripciones con:

Gabriela Azócar

milenio.crisis@uai.cl

<http://mileniocrisis.uai.cl>