

CV AND RECENT PUBLICATIONS

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Born 1946 in Strasbourg (France), currently professor at the University of Paris 7.

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Author of several books and about 60 papers in various scientific journals in the fields of economics, sociology and physics (see recent publications below).

A guest at various leading economic and physical institutions such as:

- the Institute of Economics (Copenhagen, September 1996),
- the Harvard Department of Economics (Summer 1994, Fall 1998),
- the Santa Fe Institute (2002),
- the Harvard Department of Sociology (Spring 2002),
- Brookhaven National Laboratory, New York (Spring 2003, May-June 2005).
- Beijing Normal University (Oct 2007, Sep-Nov 2008), Sep-Nov 2009)

Co-organizer of and invited speaker at the Prague 2001 NATO Conference on econophysics (8-10 February).

Member of the editorial board of one of the main websites devoted to econophysics:

www.unifr.ch/econophysics

Referee for various economic or physical journals; e.g. *Explorations in Economic History*, *Journal of Development Economics*, *International Regional Science Review*, *Journal of Economic Behavior*, *Physica A*, or institutions, e.g. the National Science Foundation.

RECENT PUBLICATIONS

Books

1) *Un siècle de commerce du blé en France: 1825-1913. Les fluctuations du champ des prix [Wheat trade and wheat prices in France: 1825-1913].* Preface by Pierre Chaunu.

in collaboration with S. Drame, C. Gonfalone, J.A. Miller

Economica, Paris 1991 (251 p.)

2) *Science in English.*

in collaboration with A. Paquette, University of Paris-Sorbonne

Belin. Paris 1991 (258 p.)

This book has been translated into Spanish under the title: *El ingles de los textos científicos.* Larousse 1996 (302 p.)

3) *Theory of markets. Trade and space-time patterns of price fluctuations. A study in analytical economics.*

Springer-Verlag, Berlin, 1995 (405 p.)

- 4) Hidden collective factors in speculative trading. A study in analytical economics. Springer-Verlag, Berlin, January 2001 (230 p.)
- 5) Proceedings of the Prague 2001 conference on econophysics. *in collaboration with J.-P. Bouchaud, M. Marsili, F. Slanina.* Elsevier, Amsterdam, 2001 (355 p.) Editor
- 6) Patterns of speculation: A study in observational econophysics. Cambridge University Press, Cambridge, March 2002 (230 p.)
- 7) Pattern and repertoire in history: An introduction to analytical history. *in collaboration with Tony Syme, Oxford University.* Harvard University Press, Cambridge (Massachusetts), May 2002 (413 p.)
- 8) Separatism and integration: A study in analytical history. *in collaboration with Leonard Rahilly, Michigan State University.* Rowman and Littlefield, September 2002 (353 p.)
- 9) Cohésion sociale. Odile Jacob, Paris, September 2005 (371 p.)
- 10) Driving forces in physical, biological and socio-economic phenomena. A network science investigation of social bonds and interactions. Cambridge University Press, May 2007 (254 p.)
- 11) Relations between Allied forces and the population of Japan. University of Paris 6 – LPTHE Working Report, March 2008 (260 p.)
[Available in major university libraries in Britain, China, France, Japan and the United States.]
- 12) Hidden collective factors in speculative trading. A study in analytical economics. Second Edition with 4 new chapters
Springer-Verlag, Berlin, September 2009 (312 p.)

Some “early” papers in econophysics

- 1) A dynamic generalization of Zipf’s rank size rule. *Environment and Planning A*, 14,1449-1467 (1982)
in collaboration with K.E. Wiese
- 2) Macroeconomic regularities in the growth of nations: an empirical enquiry. *International Journal of Systems Science* 15,9,917-936 (1984)
- 3) Aggregation of independent Paretian random variables. *Advances in Applied Probability* 17,465-469 (1985)
in collaboration with P. Winiwarter
- 4) An empirical study of price correlations: 1 How should spatial interactions between interdependent markets be measured?
Environment and Planning A, 21,161-173 (1989)
- 5) An empirical study of price correlations: 2 The decrease in price correlation with distance and the concept of correlation length.
Environment and Planning A, 21,289-298 (1989)
- 6) Invariant patterns of wheat price series. *Economies et Sociétés* 11,5-27 (1990)

7) The long-term trend toward increased dispersion in the distribution of city-sizes.
Environment and Planning A, 23,1725-1740.

Articles (1995-2010)

1) Evolution of urban systems in the Pareto plane
Journal of Regional Science 35,2,277-300 (1995)

2) The role of transportation costs in the economics of commodity markets.
American Journal of Agricultural Economics 78,339-353 (1996)

3) Spatial and historical determinants of separatism and integration.
Swiss Journal of Sociology 23,25-59 (1997)

4) Jesuits and the state. A comparative study of their expulsions
(1500-1990). Religion 27,165-182 (1997)

5) The comparative way in economics. A reappraisal.
Economie Appliquée 50,4,7-32 (1997)

6) The sharp peak - flat trough pattern and critical speculation.
in collaboration with Didier Sornette.
The European Physical Journal B 4,387-399 (1998)

7) Spatial analysis of real estate price bubbles: Paris 1984-1993.
Regional Science and Urban Economics 29,73-88 (1999)

8) The space-time pattern of price waves.
The European Physical Journal B 8,151-159 (1999)

9) Analysis of the phenomenon of speculative trading in one of its basic manifestations: postage
stamp bubbles.
in collaboration with Didier Sornette.
International Journal of Modern Physics C 10,6,1099-1116 (1999)

10) Identifying the bottom line after a stock market crash.
International Journal of Modern Physics C 11,1,91-100 (2000)

11) The correlation length of commodity markets: 1. Empirical evidence
The European Physical Journal B 13,175-187 (2000)

12) The correlation length of commodity markets: 2. Theoretical framework
The European Physical Journal B 13,189-200 (2000)

13) Speculative trading: the price multiplier effect.
The European Physical Journal B 14,395-399 (2000)

14) "Thermometers" of speculative frenzy.
in collaboration with Didier Sornette
The European Physical Journal B 16,729-739 (2000)

15) Determining bottom price-levels after a speculative peak.
The European Physical Journal B 17,341-345 (2000)

16) Comparing the correlation length of grain markets in China and France.
in collaboration with Carol Shiue International Journal of Modern Physics C 11,7,1383-1410 (2001)

- 17) To sell or not to sell? Behavior of shareholders during price collapses.
International Journal of Modern Physics C 12,1 (2001)
- 18) Two classes of speculative peaks.
Physica A 299, 71-83 (2001).
- 19) Pattern of speculation in stocks and real estate.
Nikkei Workshop, 11 November 2002. published in Takayasu, editor: The application of econophysics, Springer-Verlag, Tokyo (2004)
- 20) Does the price multiplier effect also hold for stocks?
in collaboration with Sergei Maslov
International Journal of Modern Physics C 14,10,1439-1451 (2003)
- 21) The conundrum of stock versus bond prices.
in collaboration with Sergei Maslov.
Physica A, 335,164-182 (2004)
- 22) Response functions to critical shocks in social sciences: an empirical and numerical study.
in collaboration with Didier Sornette and Jorgen Andersen
International Journal of Modern Physics C 15,6,809-834 (2004).
- 23) Stock markets are not what we think they are: the key roles of cross-ownership and corporate treasury stock.
Physica A, 347, 613-626 (2005)
- 24) A bridge between liquids and socio-economic systems: the key-role of interaction strengths.
Physica A, 348,659-682 (2005)
- 25) Macroplayers in stock markets.
Proceedings of the Third Nikkei Economics Symposium, Tokyo 2004. Hideki Takayasu editor, Springer, 2006
- 26) Real estate price peaks: a comparative perspective.
Evolutionary and Institutional Economics Review 2,2,167-182 (2006)
- 27) White flight or flight from poverty?
in collaboration with Liguori Jego
Journal of Economic Interaction and Coordination 1, 75-87 (2006)
- 28) Determinants of intermarriage rates
in collaboration with Liguori Jego
Preprint, May 2007.
- 29) Econophysics: challenges and promises. An observation based-approach.
Evolutionary and Institutional Economic Review 4,2,251-266 (2008)
- 30) Fifteen years of econophysics: worries, hopes and prospects.
Science and Culture (published by the Indian Science News Association, Kolkata, India) 76,9-10,305-314, September-October 2010.
- 31) How can population pyramids be used to explore the past?
Asia Pacific Center for Theoretical Physics (APCTP) Bulletin 25-26, 13-25, January-December 2010.

III. RECENT INVITED TALKS (1998-2010)

- 1) Fernand Braudel Center (I. Wallerstein), Sep 17, 1998
Regularities in separatism and integration
- 2) Harvard University, Dept of Sociology (S. Lieberson), Sep 29, 1998
Empirical regularities in separatism and integration
- 3) University of Arizona, Dept of Sociology (M. Hechter), Oct 16, 1998
Varieties of colonialism: land versus language
- 4) University of California (Davis), Center for History, Society and Culture (J. Goldstone), Oct 27, 1998
Not because it is important but because it is simple: the taking apart of the French Revolution.
- 5) Boston University, Polymer Center and Physics Dept (E. Stanley), Nov 2, 1998
The space-time pattern of price waves
- 6) University of Chicago, Enrico Fermi Institute (P. Freund), Nov 18, 1998
Space-time pattern of price waves
- 7) West Virginia University, Dept of Agriculture (W. Labys), Nov 20, 1998
The sharp peak - flat trough pattern and critical speculation in commodity markets
- 8) Middlebury College, Geonomics Center for International Studies (W. Connor), Dec 1, 1998
Masters of our home: geography and political secession
- 9) University of Cologne, Institute for Theoretical Physics (D. Stauffer), Nov 26, 1999
Patterns of speculative trading
- 10) University of Bonn, Dept of Economics (T. Lux), Nov 29, 1999
Speculative trading: the price multiplier effect and other regularities
- 11) University of Paris, Institute for Nuclear Physics, Orsay, Dec 12, 2000
Mécanismes spéculatifs [Speculative mechanisms]
- 12) Santa Fe Institute. February 21, 2002
Common features of speculation in various markets
- 13) Stanford University, Dept. of Political Science. March 11, 2002
Why and how to decompose historical events into elementary modules
- 14) University of California, Davis. April 9, 2002
Comparative analysis of historical recurrent events
- 15) Federal Reserve Bank of Chicago, Chicago. April 24, 2002
The dynamics of speculative peaks
- 16) Columbia University, Dept. of Sociology. May 1, 2002
Analyzing clusters of events
- 17) Brookhaven National Laboratory. May 2, 2002
Dynamic response times in speculative bubbles
- 18) Second Nikkei Conference, Tokyo. November 12, 2002
Patterns of speculation in real estate and stocks
- 19) Rutgers University, Dept. of economics. May 7, 2003
Patterns of speculation in real estate and stocks.
- 20) Brookhaven National Laboratory. May 19, 2003
Why econophysics? The primacy of observation.

- 21) Third Nikkei Conference, Tokyo. November 10, 2004
Macroplayers in stock markets
- 22) International Christian University, Tokyo. Dept. of Economics; Novembre 12, 2004
Macroplayers in stock markets
- 23) Dept. of Economics, University of Toscane, Viterbo, Italy. September 2, 2005
Transfat: risk, profit and consensus formation.
- 24) Dept. of Physics, National University of Singapore, Singapore. September 21, 2007
Econophysics: challenges and promises
- 25) School of Management, East China University of Science and Technology, Shanghai. September 27, 2007
Real estate price peaks in comparative perspective
- 26) Dept. of Physics, Zhejiang University, Hangzhou, China. October 9, 2007
Econophysics: challenges and promises
- 27) Dept. of Physics, Renmin University, Beijing, October 15, 2007
Econophysics: challenges and promises
- 28) Dept. of Systems Science, Beijing Normal University, Beijing. October 17, 2007
Econophysics: challenges and promises
- 29) Dept. of Economics, Chuo University, Tokyo. November 1, 2007
Real estate price peaks in comparative perspective
- 30) Tokyo Institute of Technology, Tokyo. November 6, 2007
Econophysics: challenges and promises
- 31) Dept. of Economics, Kyoto University, Kyoto. November 13, 2007
Econophysics: challenges and promises
- 32) Institute for Scientific Interchange Foundation, Torino, Italy. May 26, 2008.
Econophysics: challenges and promises
- 33) Dept. of Systems Science, Beijing Normal University. September 24, 2008
The viewpoint of systems science.
- 34) Dept. of Systems Science, Beijing Normal University. October 8, 2008
Effects of increased interaction
- 35) Dept. of Systems Science, Beijing Normal University. October 15, 2008
A global view of complexification processes
- 36) Dept. of Systems Science, Beijing Normal University. October 22, 2008
Techniques for measuring interaction strength (1)
- 37) Dept. of History, Beijing Normal University. October 24, 2008
Toward a scientific approach in historical analysis
- 38) Dept. of Systems Science, Beijing Normal University. October 29, 2008
Techniques for measuring interaction strength (2)
- 39) Dept. of Economics, Hokkaido University, Sapporo. November 21, 2008
The strange fate of Keynesian economics
- 40) Dept. of Economics, Hokkaido University, Sapporo. November 22, 2008
Was there a phase transition in the United States around 1975?

- 41) Dept. of Economics, Chuo University, Tokyo (City center campus). November 29, 2008
Usefulness of a systems science perspective in economics.
- 42) Dept. of Economics, International Christian University, Tokyo. December 8, 2008
Was there a phase transition in the United States around 1975?
- 43) Dept. of Economics, International Christian University, Tokyo. December 8, 2008
The strange fate of Keynesian economics
- 44) Dept. of Economics, Chuo University, Tokyo (Tama Campus). December 10, 2008
Interaction maximization as an evolution principle for social systems
- 45) Dept. of Systems Science, Beijing Normal University. 23 September 2009
Presentation of the BNU Championship in experimental science
- 46) Dept. of Systems Science, Beijing Normal University. 14 October 2009
Are there “free” markets? Part I: Case-study of the aerospace industry
- 47) Dept of Complex Systems, Qingdao University. 16 October 2009
Are there “free” markets? Case-study of the commercial aircraft industry
- 48) Interaction networks in the social sciences. 28 October 2009
Part 1: Are there “free markets”? Case-study of the labor market. Part 2: Can one estimate the interactions between states through their diplomatic contacts?
- 49) School of Management, East China University of Science and Technology, Shanghai. 6 November 2009
Are there free markets? Two case studies
- 50) Dept. of Economics, Chuo University, Tokyo (Tama Campus). 9 December 2009
Are there free markets? Two case studies
- 51) Dept. of Systems Science, Beijing Normal University Summer School. 27 July 2010.
Can population pyramids be used to explore the past?
- 52) Shanghai. 4th China-Europe Summer School on Complexity Sciences. 13 August 2010.
How can one use population pyramids to explore the past?
- 53) Dept. of Physics. Sungkyunkwan University (Seoul, South Korea). 15 October 2010.
How can population pyramids be used to explore the past?
- 53) Institute of Biophysics, Chinese Academy of Science, Beijing. 15 November 2010.
Measuring interactions. Can one describe a group of fishes or fruit flies as a Van der Waals gas?
- 54) Dept. of Economics, Chuo University, Tokyo (Tama Campus). 22 November 2010
Political and economic effects of asymmetrical relations. Part I: Political effects.
- 55) Dept. of Economics, Chuo University, Tokyo (Tama Campus). 23 November 2010
Political and economic effects of asymmetrical relations Part II: Economic effects.