Jorge M Pacheco

List of Publications by Year
in descending order

169	12,194	41258	26548
papers	citations	49 h-index	107 g-index

171	171	171	4173
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Scale-Free Networks Provide a Unifying Framework for the Emergence of Cooperation. Physical Review Letters, 2005, 95, 098104.	2.9	1,364
2	Social diversity promotes the emergence of cooperation in public goods games. Nature, 2008, 454, 213-216.	13.7	1,144
3	Evolutionary dynamics of social dilemmas in structured heterogeneous populations. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 3490-3494.	3.3	834
4	Coevolution of Strategy and Structure in Complex Networks with Dynamical Linking. Physical Review Letters, 2006, 97, 258103.	2.9	578
5	Cooperation Prevails When Individuals Adjust Their Social Ties. PLoS Computational Biology, 2006, 2, e140.	1.5	440
6	Stochastic dynamics of invasion and fixation. Physical Review E, 2006, 74, 011909.	0.8	431
7	Graph topology plays a determinant role in the evolution of cooperation. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 51-55.	1.2	311
8	Pairwise comparison and selection temperature in evolutionary game dynamics. Journal of Theoretical Biology, 2007, 246, 522-529.	0.8	300
9	Evolutionary dynamics of collective action in N -person stag hunt dilemmas. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 315-321.	1.2	285
10	Epidemic spreading and cooperation dynamics on homogeneous small-world networks. Physical Review E, 2005, 72, 056128.	0.8	241
11	Breaking the Symmetry between Interaction and Replacement in Evolutionary Dynamics on Graphs. Physical Review Letters, 2007, 98, 108106.	2.9	235
12	Active linking in evolutionary games. Journal of Theoretical Biology, 2006, 243, 437-443.	0.8	225
13	A new route to the evolution of cooperation. Journal of Evolutionary Biology, 2006, 19, 726-733.	0.8	219
14	Risk of collective failure provides an escape from the tragedy of the commons. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10421-10425.	3.3	211
15	Evolution of cooperation under -person snowdrift games. Journal of Theoretical Biology, 2009, 260, 581-588.	0.8	195
16	Evolutionary graph theory: Breaking the symmetry between interaction and replacement. Journal of Theoretical Biology, 2007, 246, 681-694.	0.8	162
17	The role of diversity in the evolution of cooperation. Journal of Theoretical Biology, 2012, 299, 88-96.	0.8	158
18	Reacting Differently to Adverse Ties Promotes Cooperation in Social Networks. Physical Review Letters, 2009, 102, 058105.	2.9	146

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19	A bottom-up institutional approach to cooperative governance of risky commons. Nature Climate Change, 2013, 3, 797-801.	8.1	137
20	Damping of nuclear excitations at finite temperature. Nuclear Physics A, 1986, 460, 149-163.	0.6	135
21	Stern-Judging: A Simple, Successful Norm Which Promotes Cooperation under Indirect Reciprocity. PLoS Computational Biology, 2006, 2, e178.	1.5	134
22	Social norm complexity and past reputations in the evolution of cooperation. Nature, 2018, 555, 242-245.	13.7	130
23	Repeated games and direct reciprocity under active linking. Journal of Theoretical Biology, 2008, 250, 723-731.	0.8	128
24	Stochasticity and evolutionary stability. Physical Review E, 2006, 74, 021905.	0.8	112
25	Climate policies under wealth inequality. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2212-2216.	3.3	112
26	First-Principles Determination of the Dispersion Interaction between Fullerenes and Their Intermolecular Potential. Physical Review Letters, 1997, 79, 3873-3876.	2.9	106
27	Stochastic payoff evaluation increases the temperature of selection. Journal of Theoretical Biology, 2007, 244, 349-356.	0.8	106
28	Climate change governance, cooperation and self-organization. Physics of Life Reviews, 2014, 11, 573-586.	1.5	103
29	Cancer phenotype as the outcome of an evolutionary game between normal and malignant cells. British Journal of Cancer, 2009, 101, 1130-1136.	2.9	101
30	Effect of surface fluctuations in the line shape of plasma resonances in small metal clusters. Physical Review Letters, 1989, 62, 1400-1402.	2.9	99
31	Compartmental Architecture and Dynamics of Hematopoiesis. PLoS ONE, 2007, 2, e345.	1.1	91
32	Stochastic Dynamics of Hematopoietic Tumor Stem Cells. Cell Cycle, 2007, 6, 461-466.	1.3	88
33	The evolution of norms. Journal of Theoretical Biology, 2006, 241, 233-240.	0.8	87
34	Allometric Scaling of the Active Hematopoietic Stem Cell Pool across Mammals. PLoS ONE, 2006, 1, e2.	1.1	86
35	Emergence of Fairness in Repeated Group Interactions. Physical Review Letters, 2012, 108, 158104.	2.9	83
36	Paths to the adoption of electric vehicles: An evolutionary game theoretical approach. Transportation Research Part B: Methodological, 2018, 113, 24-33.	2.8	79

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37	Dynamics of N-person snowdrift games in structured populations. Journal of Theoretical Biology, 2012, 315, 81-86.	0.8	74
38	Recurrent epidemics in small world networks. Journal of Theoretical Biology, 2005, 233, 553-561.	0.8	72
39	Dynamics of Mutant Cells in Hierarchical Organized Tissues. PLoS Computational Biology, 2011, 7, e1002290.	1.5	70
40	The ecology of cancer from an evolutionary game theory perspective. Interface Focus, 2014, 4, 20140019.	1.5	68
41	Single-particle and collective degrees of freedom in C60. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, L643-L649.	0.6	66
42	Quantum Size Effects in the Polarizability of Carbon Fullerenes. Physical Review Letters, 2004, 92, 215501.	2.9	62
43	Linking Individual and Collective Behavior in Adaptive Social Networks. Physical Review Letters, 2016, 116, 128702.	2.9	59
44	Co-evolution of pre-play signaling and cooperation. Journal of Theoretical Biology, 2011, 274, 30-35.	0.8	57
45	Microscopic structure of the plasma resonance in charged potassium microclusters. Physical Review B, 1990, 41, 6088-6091.	1.1	56
46	From Local to Global Dilemmas in Social Networks. PLoS ONE, 2012, 7, e32114.	1.1	56
47	Tyrosine kinase inhibitor therapy can cure chronic myeloid leukemia without hitting leukemic stem cells. Haematologica, 2010, 95, 900-907.	1.7	55
48	Fluctuations in the Shape Transitions of Hot Nuclei. Physical Review Letters, 1988, 61, 294-297.	2.9	54
49	Adaptive Contact Networks Change Effective Disease Infectiousness and Dynamics. PLoS Computational Biology, 2010, 6, e1000895.	1.5	52
50	Population Structure Induces a Symmetry Breaking Favoring the Emergence of Cooperation. PLoS Computational Biology, 2009, 5, e1000596.	1.5	51
51	Social Norms of Cooperation in Small-Scale Societies. PLoS Computational Biology, 2016, 12, e1004709.	1.5	49
52	Neutral evolution in paroxysmal nocturnal hemoglobinuria. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18496-18500.	3.3	46
53	EVOLUTIONARY DYNAMICS OF CLIMATE CHANGE UNDER COLLECTIVE-RISK DILEMMAS. Mathematical Models and Methods in Applied Sciences, 2012, 22, 1140004.	1.7	45
54	Origin of Peer Influence in Social Networks. Physical Review Letters, 2014, 112, 098702.	2.9	45

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55	Structural Identification of Metcars. Physical Review Letters, 2002, 88, 115504.	2.9	44
56	The evolution of prompt reaction to adverse ties. BMC Evolutionary Biology, 2008, 8, 287.	3.2	44
57	How selection pressure changes the nature of social dilemmas in structured populations. New Journal of Physics, 2012, 14, 073035.	1.2	44
58	Reward and punishment in climate change dilemmas. Scientific Reports, 2019, 9, 16193.	1.6	44
59	Fractal cartography of urban areas. Scientific Reports, 2012, 2, 527.	1.6	43
60	Influence of the exchange-correlation potential in density-functional calculations on polarizabilities and absorption spectra of alkali-metal clusters. Physical Review A, 2001, 63, .	1.0	41
61	Relationship Between Depth of Response and Outcome in Multiple Myeloma. Journal of Clinical Oncology, 2007, 25, 4933-4937.	0.8	40
62	Evolution of All-or-None Strategies in Repeated Public Goods Dilemmas. PLoS Computational Biology, 2014, 10, e1003945.	1.5	40
63	Siliconâ€“metal clusters: Nano-templates for cluster assembled materials. Thin Solid Films, 2006, 515, 1192-1196.	0.8	38
64	Silicon and metal nanotemplates: Size and species dependence of structural and electronic properties. Journal of Chemical Physics, 2003, 119, 10313-10317.	1.2	35
65	Escaping the tragedy of the commons via directed investments. Journal of Theoretical Biology, 2011, 287, 37-41.	0.8	33
66	Evolution of collective action in adaptive social structures. Scientific Reports, 2013, 3, 1521.	1.6	33
67	Reintroduction of ionic structure in the self-consistent jellium model for metal clusters: Pseudopotential perturbation theory. Physical Review B, 1994, 50, 11079-11087.	1.1	32
68	A new formulation of the dynamical response of many-electron systems and the photoabsorption cross section of small metal clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1992, 24, 65-69.	1.0	31
69	On the Origin of Multiple Mutant Clones in Paroxysmal Nocturnal Hemoglobinuria. Stem Cells, 2007, 25, 3081-3084.	1.4	31
70	On the dynamics of neutral mutations in a mathematical model for a homogeneous stem cell population. Journal of the Royal Society Interface, 2013, 10, 20120810.	1.5	31
71	Chronic Myeloid Leukemia: Origin, Development, Response to Therapy, and Relapse. Clinical Leukemia, 2008, 2, 133-139.	0.2	30
72	Selection pressure transforms the nature of social dilemmas in adaptive networks. New Journal of Physics, 2011, 13, 013007.	1.2	30

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73	Evolutionary dynamics of group fairness. Journal of Theoretical Biology, 2015, 378, 96-102.	0.8	30
74	Evolution of cooperation under indirect reciprocity and arbitrary exploration rates. Scientific Reports, 2016, 6, 37517.	1.6	30
75	Phase diagram of C60 from ab initio intermolecular potential. Journal of Chemical Physics, 2000, 113, 738-743.	1.2	29
76	Individual memory and the emergence of cooperation. Animal Behaviour, 2013, 85, 233-239.	0.8	29
77	The intrinsic line width of the plasmon resonances in metal microclusters at very low temperatures: quantal surface fluctuations. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1991, 21, 289-292.	1.0	28
78	Stability analysis of a bulk material built from silicon cage clusters: A first-principles approach. Physical Review B, 2007, 76, .	1.1	28
79	Cognitive strategies take advantage of the cooperative potential of heterogeneous networks. New Journal of Physics, 2012, 14, 063031.	1.2	28
80	Cooperation dynamics of polycentric climate governance. Mathematical Models and Methods in Applied Sciences, 2015, 25, 2503-2517.	1.7	26
81	Stochastic Dynamics through Hierarchically Embedded Markov Chains. Physical Review Letters, 2017, 118, 058301.	2.9	26
82	The emergence of tumor metastases. Cancer Biology and Therapy, 2007, 6, 383-390.	1.5	25
83	Ontogenic growth of the haemopoietic stem cell pool in humans. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 2497-2501.	1.2	24
84	Progenitor cell selfâ€renewal and cyclic neutropenia. Cell Proliferation, 2009, 42, 330-338.	2.4	24
85	Somatic mutations and the hierarchy of hematopoiesis. BioEssays, 2010, 32, 1003-1008.	1.2	24
86	Governance of risky public goods under graduated punishment. Journal of Theoretical Biology, 2020, 505, 110423.	0.8	24
87	Modeling the architecture and dynamics of hematopoiesis. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 235-244.	6.6	23
88	Evolution of Collective Fairness in Hybrid Populations of Humans and Agents. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 6146-6153.	3.6	23
89	Microscopic calculation of the van der Waals interaction between small metal clusters. Physical Review Letters, 1992, 68, 3694-3697.	2.9	21
90	In silico evolutionary dynamics of tumour virotherapy. Integrative Biology (United Kingdom), 2010, 2, 41-45.	0.6	21

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91	Reward from Punishment Does Not Emerge at All Costs. PLoS Computational Biology, 2013, 9, e1002868.	1.5	21
92	Multiple mutant clones in blood rarely coexist. Physical Review E, 2008, 77, 021915.	0.8	20
93	Stochastic dynamics and the evolution of mutations in stem cells. BMC Biology, 2011, 9, 41.	1.7	20
94	Co-evolutionary Dynamics of Collective Action with Signaling for a Quorum. PLoS Computational Biology, 2015, 11, e1004101.	1.5	20
95	The complexity of human cooperation under indirect reciprocity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20200291.	1.8	20
96	Network Dependence of the Dilemmas Of Cooperation. AIP Conference Proceedings, 2005, , .	0.3	19
97	Acquired hematopoietic stem-cell disorders and mammalian size. Blood, 2007, 110, 4120-4122.	0.6	18
98	Cyclic neutropenia in mammals. American Journal of Hematology, 2008, 83, 920-921.	2.0	18
99	Bulk materials made of silicon cage clusters doped with Ti, Zr, or Hf. Journal of Physics Condensed Matter, 2010, 22, 035501.	0.7	18
100	An Evolutionary Game Theoretic Approach to Multi-Sector Coordination and Self-Organization. Entropy, 2016, 18, 152.	1.1	18
101	Structural and electronic properties of C36. Journal of Chemical Physics, 2001, 114, 6068-6071.	1.2	17
102	Evolutionary Dynamics of Chronic Myeloid Leukemia. Genes and Cancer, 2010, 1, 309-315.	0.6	17
103	Incomplete cooperation and co-benefits: deepening climate cooperation with a proliferation of small agreements. Climatic Change, 2017, 144, 65-79.	1.7	17
104	Dynamics of haemopoiesis across mammals. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 2389-2392.	1.2	16
105	Modelling hematopoiesis in health and disease. Mathematical and Computer Modelling, 2011, 53, 1546-1557.	2.0	16
106	Evolutionary dynamics of collective action when individual fitness derives from group decisions taken in the past. Journal of Theoretical Biology, 2012, 298, 8-15.	0.8	16
107	Response of metal clusters to elastic electron impact. Physical Review A, 1995, 52, 2173-2178.	1.0	15
108	Serum M-spike and transplant outcome in patients with multiple myeloma. Cancer Science, 2007, 98, 1035-1040.	1.7	15

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109	Cyclic neutropenia in animals. American Journal of Hematology, 2009, 84, 258-258.	2.0	15
110	Coevolution of Cooperation, Response to Adverse Social Ties and Network Structure. Games, 2010, 1, 317-337.	0.4	15
111	Incipient Cognition Solves the Spatial Reciprocity Conundrum of Cooperation. PLoS ONE, 2011, 6, e17939.	1.1	15
112	Evolutionary dynamics of paroxysmal nocturnal hemoglobinuria. PLoS Computational Biology, 2018, 14, e1006133.	1.5	14
113	Optical response of metal microclusters: Atomic analog of the giant dipole resonance in nuclei. Physical Review B, 1991, 44, 5901-5904.	1.1	13
114	Algebraic manipulation of the states associated with the U(5) âŠƒ O(5) âŠƒ O(3) chain of groups: orthonormalization and matrix elements. Computer Physics Communications, 1989, 54, 315-328.	3.0	12
115	Effective particle-hole interaction and the optical response of simple-metal clusters. Physical Review B, 1995, 52, 16864-16868.	1.1	12
116	Reproductive fitness advantage of BCRâ€“ABL expressing leukemia cells. Cancer Letters, 2010, 294, 43-48.	3.2	12
117	Urban Dynamics, Fractals and Generalized Entropy. Entropy, 2013, 15, 2679-2697.	1.1	12
118	Dynamics of informal risk sharing in collective index insurance. Nature Sustainability, 2021, 4, 426-432.	11.5	12
119	Paradigm shifts and the interplay between state, business and civil sectors. Royal Society Open Science, 2016, 3, 160753.	1.1	11
120	Evolutionary Games in Self-Organizing Populations. Understanding Complex Systems, 2009, , 253-267.	0.3	11
121	The allometry of chronic myeloid leukemia. Journal of Theoretical Biology, 2009, 259, 635-640.	0.8	10
122	Microscopic structure of collective density oscillations C60 and C70. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1995, 35, 141-148.	1.0	9
123	Dynamics of Fairness in Groups of Autonomous Learning Agents. Lecture Notes in Computer Science, 2016, , 107-126.	1.0	9
124	Coalition-structured governance improves cooperation to provide public goods. Scientific Reports, 2020, 10, 9194.	1.6	9
125	An algebraic program for the states associated with the U(5) âŠƒ O(5) âŠƒ O(3) chain of groups. Computer Physics Communications, 1988, 52, 85-92.	3.0	8
126	Financial incentives to poor countries promote net emissions reductions in multilateral climate agreements. One Earth, 2021, 4, 1141-1149.	3.6	8

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127	Photoabsorption cross section of negatively charged alkali-metal clusters. Physical Review B, 1993, 47, 6667-6671.	1.1	7
128	Explaining the in vitro and in vivo differences in leukemia therapy. Cell Cycle, 2011, 10, 1540-1544.	1.3	7
129	Structural power and the evolution of collective fairness in social networks. PLoS ONE, 2017, 12, e0175687.	1.1	7
130	Time-dependent Hartree-Fock calculation of the escape width of the giant monopole resonance inO16. Physical Review C, 1988, 37, 2257-2260.	1.1	6
131	InÂvivoandinÂsilicostudies on single versus multiple transplants for multiple myeloma. Cancer Science, 2007, 98, 734-739.	1.7	6
132	Vibrational spectra of silicon cage clusters doped with Ti, Zr, or Hf. Physical Review B, 2010, 82, .	1.1	6
133	Evolutionary Dynamics of Collective Action. , 2011, , 119-138.		6
134	Evolutionary dynamics of collective index insurance. Journal of Mathematical Biology, 2016, 72, 997-1010.	0.8	6
135	Pacheco and SchÃ¶ne Reply:. Physical Review Letters, 1998, 81, 5703-5703.	2.9	5
136	Hierarchically Constrained Dynamics and Emergence of Complex Behavior in Nanohybrids. Small, 2010, 6, 386-390.	5.2	5
137	A Multi-level Selection Model for the Emergence of Social Norms. Lecture Notes in Computer Science, 2007, , 525-534.	1.0	5
138	Effects of motional narrowing on the plasmon resonance in small metal clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1992, 24, 401-405.	1.0	4
139	Microscopic description of the plasmon resonance in small deformed metal clusters. Physical Review B, 1994, 49, 10764-10767.	1.1	4
140	Reply: Evolutionary game theory: lessons and limitations, a cancer perspective. British Journal of Cancer, 2009, 101, 2062-2063.	2.9	4
141	Stable leaders pave the way for cooperation under time-dependent exploration rates. Royal Society Open Science, 2021, 8, 200910.	1.1	4
142	Effects of geometry in elastic scattering and capture of free electrons by molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, L511-L517.	0.6	3
143	Crime as a complex system. Physics of Life Reviews, 2015, 12, 32-33.	1.5	3
144	Incomplete Cooperation and Co-Benefits: Deepening Climate Cooperation with a Proliferation of Small Agreements. SSRN Electronic Journal, 0, , .	0.4	3

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145	Climate governance as a complex adaptive system. Physics of Life Reviews, 2014, 11, 595-597.	1.5	2
146	Structural and temporal patterns of the first global trading market. Royal Society Open Science, 2018, 5, 180577.	1.1	2
147	Evolution of Cooperation in a Population of Selfish Adaptive Agents. Lecture Notes in Computer Science, 2007, , 535-544.	1.0	2
148	Role of self-interaction effects in the geometry optimization of small metal clusters. Europhysics Letters, 1996, 34, 13-18.	0.7	1
149	Some Dynamic Aspects of Hematopoietic Stem Cells. Stem Cell Reviews and Reports, 2008, 4, 57-64.	5.6	1
150	Coordinating towards a Common Good. , 2010, , .		1
151	Evolution of Fairness and Conditional Cooperation in Public Goods Dilemmas. Springer Proceedings in Complexity, 2013, , 827-830.	0.2	1
152	About the discrete-continuous nature of a hematopoiesis model for Chronic Myeloid Leukemia. Mathematical Biosciences, 2016, 282, 174-180.	0.9	1
153	Multiplayer Ultimatum Games and Collective Fairness in Networked Communities. , 2018, , .		1
154	Emergence of Cooperation in Adaptive Social Networks with Behavioral Diversity. Lecture Notes in Computer Science, 2011, , 434-441.	1.0	1
155	The Messianic Effect of Pathological Altruism. , 2011, , 301-310.		1
156	Collective Evolutionary Dynamics and Spatial Reciprocity under the N-Person Snowdrift Game. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 178-188.	0.2	1
157	Successful Cancer Treatment: Eradication of Cancer Stem Cells. , 2008, , 179-191.		0
158	The coevolution of loyalty and cooperation. , 2009, , .		0
159	Minimizing CO2 Emissions in a Computing World. , 2010, , .		0
160	Evolutionary Dynamics of Mutations in Hematopoietic Stem Cells and Beyond. , 2012, , 115-123.		0
161	The Role of Execution Errors in Populations of Ultimatum Bargaining Agents. Lecture Notes in Computer Science, 2017, , 36-50.	1.0	0
162	Disease Spreading in Time-Evolving Networked Communities. Theoretical Biology, 2017, , 291-316.	0.0	0

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163	Parallelization of a Density Functional Program for Monte-Carlo Simulation of Large Molecules. Lecture Notes in Computer Science, 2001, , 230-241.	1.0	0
164	Single Versus Multiple Transplants for Multiple Myeloma: Insights from In Vivo and In Silico Studies.. Blood, 2006, 108, 5452-5452.	0.6	0
165	The Serum M-Spike and Transplant Outcome in Patients with Multiple Myeloma.. Blood, 2006, 108, 5441-5441.	0.6	0
166	Evolving the Asymmetry of the Prisonerâ€™s Dilemma Game in Adaptive Social Structures. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 205-212.	0.2	0
167	Tracking the Evolution of Cooperation in Complex Networked Populations. Lecture Notes in Computer Science, 2012, , 86-96.	1.0	0
168	Evolutionary Dynamics of Cooperation under the Distributed Prisonerâ€™s Dilemma. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 523-532.	0.2	0
169	Behavioral Dynamics under Climate Change Dilemmas. , 2013, , 113-124.		0