

Mario Giampietro

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

155
papers

3,725
citations

35
h-index

53
g-index

162
ext. papers

4,447
ext. citations

5.6
avg, IF

6.24
L-index

#	Paper	IF	Citations
155	Feasibility of Large-Scale Biofuel Production. <i>BioScience</i> , 1997 , 47, 587-600	5.7	204
154	Multi-scale integrated analysis of societal and ecosystem metabolism (MuSIASEM): Theoretical concepts and basic rationale. <i>Energy</i> , 2009 , 34, 313-322	7.9	134
153	What is wrong with evidence based policy, and how can it be improved?. <i>Futures</i> , 2017 , 91, 62-71	3.6	113
152	On the Circular Bioeconomy and Decoupling: Implications for Sustainable Growth. <i>Ecological Economics</i> , 2019 , 162, 143-156	5.6	108
151	Are Local Food Chains More Sustainable than Global Food Chains? Considerations for Assessment. <i>Sustainability</i> , 2016 , 8, 449	3.6	108
150	The Hijacking of the Bioeconomy. <i>Ecological Economics</i> , 2019 , 159, 189-197	5.6	95
149	Multiple-Scale Integrated Assessment of Societal Metabolism: Introducing the Approach. <i>Population and Environment</i> , 2000 , 22, 109-153	4	86
148	Fossil energy use in agriculture: an international comparison. <i>Agriculture, Ecosystems and Environment</i> , 1997 , 65, 231-243	5.7	80
147	Using hierarchy theory to explore the concept of sustainable development. <i>Futures</i> , 1994 , 26, 616-625	3.6	75
146	Integrated assessment and energy analysis: Quality assurance in multi-criteria analysis of sustainability. <i>Energy</i> , 2006 , 31, 59-86	7.9	73
145	The energetic metabolism of societies and the degrowth paradigm: analyzing biophysical constraints and realities. <i>Journal of Cleaner Production</i> , 2013 , 38, 80-93	10.3	71
144	Multiple-Scale Integrated Assessments of Societal Metabolism: Integrating Biophysical and Economic Representations Across Scales. <i>Population and Environment</i> , 2000 , 22, 155-210	4	71
143	The Biofuel Delusion		70
142	Questioning the Ecological Footprint. <i>Ecological Indicators</i> , 2016 , 69, 224-232	5.8	66
141	Footprints to nowhere. <i>Ecological Indicators</i> , 2014 , 46, 610-621	5.8	64
140	Integrated Assessment of Large-Scale Biofuel Production. <i>Critical Reviews in Plant Sciences</i> , 2005 , 24, 365-384	5.6	61
139	Food Security and Fossil Energy Dependence: An International Comparison of the Use of Fossil Energy in Agriculture (1991-2003). <i>Critical Reviews in Plant Sciences</i> , 2011 , 30, 45-63	5.6	55

138	The epistemological predicament associated with purposive quantitative analysis. <i>Ecological Complexity</i> , 2006 , 3, 307-327	2.6	55
137	The epistemological challenge of self-modifying systems: Governance and sustainability in the post-normal science era. <i>Ecological Economics</i> , 2006 , 57, 382-399	5.6	54
136	A multi-scale analysis of urban waste metabolism: density of waste disposed in Campania. <i>Journal of Cleaner Production</i> , 2012 , 35, 59-70	10.3	53
135	On China's exosomatic energy metabolism: An application of multi-scale integrated analysis of societal metabolism (MSIASM). <i>Ecological Economics</i> , 2007 , 63, 174-191	5.6	53
134	Energy analysis of agricultural ecosystem management: human return and sustainability. <i>Agriculture, Ecosystems and Environment</i> , 1992 , 38, 219-244	5.7	52
133	Socioeconomic constraints to farming with biodiversity. <i>Agriculture, Ecosystems and Environment</i> , 1997 , 62, 145-167	5.7	50
132	Multi-Scale Integrated Analysis of Agroecosystems		50
131	Socioeconomic pressure, demographic pressure, environmental loading and technological changes in agriculture. <i>Agriculture, Ecosystems and Environment</i> , 1997 , 65, 201-229	5.7	42
130	A dynamic model of socioeconomic systems based on hierarchy theory and its application to sustainability. <i>Structural Change and Economic Dynamics</i> , 1997 , 8, 453-469	4.5	40
129	Assessment of the energetics of human labor. <i>Agriculture, Ecosystems and Environment</i> , 1990 , 32, 257-273	3.7	40
128	Sustainable Development Indicators: From Statistics to Policy. <i>Environmental Policy and Governance</i> , 2012 , 22, 322-336	2.6	38
127	Energy efficiency: Assessing the interaction between humans and their environment. <i>Ecological Economics</i> , 1991 , 4, 117-144	5.6	38
126	Self-sufficiency or surplus: Conflicting local and national rural development goals in Cambodia. <i>Land Use Policy</i> , 2013 , 34, 342-352	5.6	37
125	Georgescu-Roegen/Daly versus Solow/Stiglitz Revisited. <i>Ecological Economics</i> , 1998 , 27, 115-117	5.6	37
124	Sustainability and Technological Development in Agriculture. <i>BioScience</i> , 1994 , 44, 677-689	5.7	37
123	Structuring an integrated water-energy-food nexus assessment of a local wind energy desalination system for irrigation. <i>Science of the Total Environment</i> , 2019 , 689, 945-957	10.2	36
122	Water-Use Sustainability in Socioecological Systems: A Multiscale Integrated Approach. <i>BioScience</i> , 2013 , 63, 14-24	5.7	36
121	From elite folk science to the policy legend of the circular economy. <i>Environmental Science and Policy</i> , 2020 , 109, 64-72	6.2	35

120	New narratives for innovation. <i>Journal of Cleaner Production</i> , 2018 , 197, 1849-1853	10.3	35
119	Distinguishing ecological engineering from environmental engineering. <i>Ecological Engineering</i> , 2003 , 20, 389-407	3.9	34
118	Energy Analysis for a Sustainable Future 2013 ,		33
117	Catalonia's energy metabolism: Using the MuSIASEM approach at different scales. <i>Energy Policy</i> , 2009 , 37, 4658-4671	7.2	33
116	The technique is never neutral. How methodological choices condition the generation of narratives for sustainability. <i>Environmental Science and Policy</i> , 2020 , 106, 87-98	6.2	32
115	Are energy statistics useful for making energy scenarios?. <i>Energy</i> , 2012 , 37, 5-17	7.9	31
114	Multiple-Scale Integrated Analysis of Farming Systems: The Thuong Lo Commune (Vietnamese Uplands) Case Study. <i>Population and Environment</i> , 2001 , 22, 315-352	4	30
113	Probing uncertainty levels of electrification in informal urban settlements: A case from South Africa. <i>Habitat International</i> , 2016 , 56, 212-221	4.6	28
112	Beyond Beyond GDP indicators: The need for reflexivity in science for governance. <i>Ecological Complexity</i> , 2015 , 21, 53-61	2.6	26
111	The energy metabolism of China and India between 1971 and 2010: Studying the bifurcation. <i>Renewable and Sustainable Energy Reviews</i> , 2015 , 41, 1052-1066	16.2	26
110	The Metabolic Pattern of Societies		26
109	Comments on The Energetic Metabolism of the European Union and the United States by Haberl and Colleagues: Theoretical and Practical Considerations on the Meaning and Usefulness of Traditional Energy Analysis. <i>Journal of Industrial Ecology</i> , 2008 , 10, 173-185	7.2	25
108	Labor productivity: A biophysical definition and assessment. <i>Human Ecology</i> , 1993 , 21, 229-260	2	24
107	A multiscale integrated analysis of the factors characterizing the sustainability of food systems in Europe. <i>Journal of Environmental Management</i> , 2020 , 271, 110944	7.9	24
106	Models of energy analysis to assess the performance of food systems. <i>Agricultural Systems</i> , 1994 , 45, 19-41	6.1	23
105	A Grammar for assessing the performance of power-supply systems: Comparing nuclear energy to fossil energy. <i>Energy</i> , 2013 , 49, 162-177	7.9	22
104	Graphic tools for data representation in integrated analysis of farming systems. <i>International Journal of Global Environmental Issues</i> , 2005 , 5, 264	0.8	22
103	The Water Metabolism of Socio-Ecological Systems: Reflections and a Conceptual Framework. <i>Journal of Industrial Ecology</i> , 2015 , 19, 853-865	7.2	21

102	Multi-scale integrated analysis of rural Laos: Studying metabolic patterns of land uses across different levels and scales. <i>Land Use Policy</i> , 2014 , 36, 155-170	5.6	21
101	Biodiversity use and technical performance of freshwater fish aquaculture in different socioeconomic contexts: China and Italy. <i>Agriculture, Ecosystems and Environment</i> , 1997 , 62, 169-185	5.7	21
100	Environmental pressure of the European agricultural system: Anticipating the biophysical consequences of internalization. <i>Ecosystem Services</i> , 2020 , 46, 101195	6.1	21
99	Analogy between Sudoku and the multi-scale integrated analysis of societal metabolism. <i>Ecological Informatics</i> , 2015 , 26, 18-28	4.2	20
98	A holistic framework for the integrated assessment of urban waste management systems. <i>Ecological Indicators</i> , 2018 , 94, 24-36	5.8	20
97	Unraveling the Complexity of the Jevons Paradox: The Link Between Innovation, Efficiency, and Sustainability. <i>Frontiers in Energy Research</i> , 2018 , 6,	3.8	20
96	Multi-scale integrated analysis of sustainability: a methodological tool to improve the quality of narratives. <i>International Journal of Global Environmental Issues</i> , 2005 , 5, 119	0.8	20
95	Societal Metabolism and Multiple-Scale Integrated Assessment: Empirical Validation and Examples of Application. <i>Population and Environment</i> , 2000 , 22, 211-254	4	20
94	Analyzing the energy performance of manufacturing across levels using the end-use matrix. <i>Energy</i> , 2018 , 161, 559-572	7.9	19
93	Holons, creaons, genons, environs, in hierarchy theory: Where we have gone. <i>Ecological Modelling</i> , 2014 , 293, 31-41	3	19
92	Generating better energy indicators: Addressing the existence of multiple scales and multiple dimensions. <i>Ecological Modelling</i> , 2011 , 223, 41-53	3	19
91	Socio-technical discourses of European electricity decarbonization: Contesting narrative credibility and legitimacy with quantitative story-telling. <i>Energy Research and Social Science</i> , 2020 , 59, 101279	7.7	19
90	Perception and Representation of the Resource Nexus at the Interface between Society and the Natural Environment. <i>Sustainability</i> , 2018 , 10, 2545	3.6	19
89	Multidimensional Reading of the Dynamics of Rural Intensification in China: The Amoeba Approach. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 299-329	5.6	18
88	The Complexity of Food Systems: Defining Relevant Attributes and Indicators for the Evaluation of Food Supply Chains in Spain. <i>Sustainability</i> , 2016 , 8, 515	3.6	18
87	Characterizing the metabolic pattern of urban systems using MuSIASEM: The case of Barcelona. <i>Energy Policy</i> , 2019 , 124, 13-22	7.2	18
86	An Optimum Population for North and Latin America. <i>Population and Environment</i> , 1998 , 20, 125-148	4	17
85	Another View of Development, Ecological Degradation, and North-South Trade. <i>Review of Social Economy</i> , 1998 , 56, 20-36	0.4	17

84	Development of a municipal solid waste management decision support tool for Naples, Italy. <i>Journal of Cleaner Production</i> , 2017 , 161, 1032-1043	10.3	16
83	Footworking in circles. <i>Ecological Indicators</i> , 2014 , 46, 260-263	5.8	16
82	General Trends of Technological Changes in Agriculture. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 261-382	3.82	16
81	Energy efficiency and nutrition in societies based on human labor. <i>Ecology of Food and Nutrition</i> , 1992 , 28, 11-32	1.9	16
80	Fallacies of energy efficiency indicators: Recognizing the complexity of the metabolic pattern of the economy. <i>Energy Policy</i> , 2020 , 137, 111089	7.2	16
79	Why does the European Union produce biofuels? Examining consistency and plausibility in prevailing narratives with quantitative storytelling. <i>Energy Research and Social Science</i> , 2021 , 71, 101810	7.7	16
78	Land poverty and emerging ruralities in Cambodia: insights from Kampot province. <i>Environment, Development and Sustainability</i> , 2014 , 16, 823-840	4.5	15
77	Empty promises or promising futures? The case of smart grids. <i>Energy</i> , 2015 , 93, 67-74	7.9	15
76	The precautionary principle and ecological hazards of genetically modified organisms. <i>Ambio</i> , 2002 , 31, 466-70	6.5	15
75	Between theory and quantification: An integrated analysis of metabolic patterns of informal urban settlements. <i>Energy Policy</i> , 2017 , 100, 377-386	7.2	14
74	Facing complexity on agro-ecosystems: a new approach to farming system analysis. <i>International Journal of Agricultural Resources, Governance and Ecology</i> , 2006 , 5, 116	0.2	14
73	Narratives and transdisciplines for a post-industrial world. <i>Systems Research and Behavioral Science</i> , 2006 , 23, 595-615	1.8	14
72	Multiple-Scale Integrated Assessment of Societal Metabolism: An Analytical Tool to Study Development and Sustainability. <i>Environment, Development and Sustainability</i> , 2001 , 3, 275-307	4.5	14
71	Multi-scale integrated evaluation of the sustainability of large-scale use of alternative feeds in salmon aquaculture. <i>Journal of Cleaner Production</i> , 2020 , 248, 119210	10.3	14
70	Technological Changes in Energy Use in U.S. Agricultural Production. <i>Ecological Studies</i> , 1990 , 305-321	1.1	14
69	An integrated multi-scale approach to assess the performance of energy systems illustrated with data from the Brazilian oil and natural gas sector. <i>Energy</i> , 2016 , 115, 1412-1423	7.9	13
68	Conventional and Land-Time Budget Analysis of Rural Villages in Hubei Province, China		13
67	Environmental accounting for ecosystem conservation: Linking societal and ecosystem metabolisms. <i>Ecological Modelling</i> , 2017 , 346, 10-19	3	12

66	The Jevons Paradox and the Myth of Resource Efficiency Improvements		11
65	An alternative to market-oriented energy models: Nexus patterns across hierarchical levels. <i>Energy Policy</i> , 2019 , 126, 431-443	7.2	11
64	Mapping degrees of complexity, complicatedness, and emergent complexity. <i>Ecological Complexity</i> , 2018 , 35, 39-44	2.6	10
63	Relational analysis of the resource nexus in arid land crop production. <i>Advances in Water Resources</i> , 2019 , 130, 258-269	4.7	10
62	An assessment of the metabolic profile implied by agricultural change in two rural communities in the North of Argentina. <i>Environment, Development and Sustainability</i> , 2014 , 16, 903-924	4.5	10
61	Multi-Scale Integrated Analysis of Charcoal Production in Complex Social-Ecological Systems. <i>Frontiers in Environmental Science</i> , 2017 , 5,	4.8	10
60	Conventional and Land-Time Budget Analysis of Rural Villages in Hubei Province, China. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 331-357	5.6	10
59	Sustainable development: Scientific and ethical assessments. <i>Journal of Agricultural and Environmental Ethics</i> , 1992 , 5, 27-57	2.3	10
58	Proposing a general energy accounting scheme with indicators for responsible development: Beyond monism. <i>Ecological Indicators</i> , 2014 , 47, 50-66	5.8	9
57	Introduction to the Special Issues on Societal Metabolism: Blending New Insights from Complex System Thinking with Old Insights from Biophysical Analyses of the Economic Process. <i>Population and Environment</i> , 2000 , 22, 97-108	4	9
56	Studying Agricultural Intensification and Sustainability in PR China. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 257-259	5.6	9
55	Limits to population size: Three scenarios of energy interaction between human society and ecosystem. <i>Population and Environment</i> , 1992 , 14, 109-131	4	9
54	Alcohol and biogas production from biomass. <i>Critical Reviews in Plant Sciences</i> , 1990 , 9, 213-233	5.6	9
53	Relational analysis of the oil and gas sector of Mexico: Implications for Mexico's energy reform. <i>Energy</i> , 2018 , 154, 403-414	7.9	8
52	The metabolism of oil extraction: A bottom-up approach applied to the case of Ecuador. <i>Energy Policy</i> , 2018 , 122, 63-74	7.2	8
51	Multi-scale integrated analysis of societal metabolism: learning from trajectories of development and building robust scenarios. <i>International Journal of Global Environmental Issues</i> , 2005 , 5, 225	0.8	8
50	Multi-scale integrated assessment of second generation bioethanol for transport sector in the Campania Region. <i>Journal of Cleaner Production</i> , 2019 , 217, 409-422	10.3	7
49	Quality assurance of knowledge claims in governance for sustainability: transcending the duality of passion vs. reason. <i>International Journal of Sustainable Development</i> , 2015 , 18, 282	2.5	7

48	Dimensions and logarithmic function in economics: A short critical analysis. <i>Ecological Economics</i> , 2010 , 69, 1604-1609	5.6	7
47	General Trends of Technological Changes in Agriculture		6
46	Multidimensional Reading of the Dynamics of Rural Intensification in China: The Amoeba Approach		6
45	Energy Analyses as a Tool for Sustainability: Lessons from Complex System Theory. <i>Annals of the New York Academy of Sciences</i> , 1999 , 879, 344-367	6.5	5
44	Environmental and Socioeconomic Constraints to the Development of Freshwater Fish Aquaculture in China. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 359-371	5.6	5
43	Global population, food and the environment. <i>Trends in Ecology and Evolution</i> , 1994 , 9, 239	10.9	5
42	Landfill reactions to society actions: The case of local and global air pollutants of Cerro Patacū in Panama. <i>Science of the Total Environment</i> , 2020 , 706, 135988	10.2	5
41	Residential energy metabolic patterns in China: A study of the urbanization process. <i>Energy</i> , 2021 , 215, 119021	7.9	5
40	Science for governance: The Implications of the Complexity Revolution82-99		4
39	Anticipation in Agriculture 2018 , 1-35		4
38	Complex Systems and Energy 2004 , 617-631		4
37	Robust information for effective municipal solid waste policies: Identifying behaviour of waste generation across spatial levels of organization. <i>Waste Management</i> , 2020 , 103, 208-217	8.6	4
36	A becoming China and the assisted maturity of the EU: Assessing the factors determining their energy metabolic patterns. <i>Energy Strategy Reviews</i> , 2020 , 32, 100562	9.8	4
35	Exploration of the environmental implications of ageing conventional oil reserves with relational analysis. <i>Science of the Total Environment</i> , 2020 , 749, 142371	10.2	4
34	Cutting through the biofuel confusion: A conceptual framework to check the feasibility, viability and desirability of biofuels. <i>Energy Strategy Reviews</i> , 2021 , 35, 100642	9.8	4
33	Understanding slums: analysis of the metabolic pattern of the Vidigal favela in Rio de Janeiro, Brazil. <i>Environment, Development and Sustainability</i> , 2016 , 18, 1297-1322	4.5	4
32	The energy metabolism of post-industrial economies. A framework to account for externalization across scales. <i>Energy</i> , 2021 , 214, 118943	7.9	4
31	Towards a circular nutrient economy. A novel way to analyze the circularity of nutrient flows in food systems. <i>Resources, Conservation and Recycling</i> , 2021 , 172, 105693	11.9	4

30	Isolated yet open: A metabolic analysis of Menorca. <i>Science of the Total Environment</i> , 2020 , 738, 139221	10.2	3
29	Sustainability, the New Challenge of Governance, and Post-Normal Science. <i>Politics and the Life Sciences</i> , 1999 , 18, 218-221	0.7	3
28	Trends of Technical Changes in Rice-Based Farming Systems in Southern China: Case Study of Qianjiang Municipality. <i>Critical Reviews in Plant Sciences</i> , 1999 , 18, 283-297	5.6	3
27	Weed benefits and costs in rice and wheat production in India. <i>Agriculture, Ecosystems and Environment</i> , 1992 , 39, 235-244	5.7	3
26	Trends of Technical Changes in Rice-Based Farming Systems in Southern China: Case Study of Qianjiang Municipality		3
25	Environmental and Socioeconomic Constraints to the Development of Freshwater Fish Aquaculture in China		3
24	Deep Decarbonisation from a Biophysical Perspective: GHG Emissions of a Renewable Electricity Transformation in the EU. <i>Sustainability</i> , 2018 , 10, 3685	3.6	3
23	Assessing the circularity of nutrient flows related to the food system in the Okanagan bioregion, BC Canada.. <i>Resources, Conservation and Recycling</i> , 2021 , 174, 105842	11.9	3
22	A waste lexicon to negotiate extended producer responsibility in free trade agreements. <i>Resources, Conservation and Recycling</i> , 2020 , 156, 104711	11.9	2
21	Biofuel in question. <i>New Scientist</i> , 2008 , 197, 18	0.6	2
20	The international division of labor and embodied working time in trade for the US, the EU and China. <i>Ecological Economics</i> , 2021 , 180, 106909	5.6	2
19	The Generation of Meaning and Preservation of Identity in Complex Adaptive Systems the LIPHE4 Criteria. <i>Springer Proceedings in Complexity</i> , 2021 , 29-46	0.3	2
18	Why should the EU implement electric vehicles? Viewing the relationship between evidence and dominant policy solutions through the lens of complexity. <i>Environmental Science and Policy</i> , 2021 , 123, 1-10	6.2	2
17	The profile of time allocation in the metabolic pattern of society: An internal biophysical limit to economic growth. <i>Ecological Economics</i> , 2021 , 190, 107183	5.6	2
16	Proposing a masterplan programme on participatory integrated assessment of energy systems to promote energy access and energy efficiency in Southern Africa. <i>International Journal of Sustainability in Higher Education</i> , 2018 , 19, 622-641	3.9	1
15	Complex Systems Thinking and Renewable Energy Systems 2008 , 173-213		1
14	Studying the Addiction to Oil of Developed Societies Using the Multi-Scale Integrated Analysis of Societal Metabolism (MSIASM). <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008 , 87-138	0.3	1
13	Using the MuSIASEM Approach to Study Metabolic Patterns of Modern Societies. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2010 , 37-68	0.3	1

12	Identification of inference fallacies in solid waste generation estimations of developing countries. A case-study in Panama. <i>Waste Management</i> , 2021 , 126, 454-465	8.6	1
11	Cyborgization of Modern Social-Economic Systems. <i>Springer Proceedings in Complexity</i> , 2021 , 149-164	0.3	1
10	The declining performance of the oil sector: Implications for global climate change mitigation. <i>Applied Energy</i> , 2021 , 298, 117210	10.7	0
9	Old Wine in New Bottles: Exploiting Data from the EU's Farm Accountancy Data Network for Pan-EU Sustainability Assessments of Agricultural Production Systems. <i>Sustainability</i> , 2021 , 13, 10080	3.6	0
8	Factors and actions for the sustainability of the residential sector. The nexus of energy, materials, space, and time use. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 161, 112388	16.2	0
7	Radical Transitions from Fossil Fuel to Renewables: A Change of Posture. <i>Green Energy and Technology</i> , 2017 , 221-235	0.6	
6	Response to dimensions and logarithmic function in economics: A comment. <i>Ecological Economics</i> , 2012 , 75, 12-14	5.6	
5	Operationalizing the Concept of Sustainability in Agriculture. <i>Advances in Agroecology</i> , 2000 , 177-202		
4	Anticipation in Agriculture 2019 , 1111-1145		
3	Local, Mixed and Global Organic Tomato Supply Chains: Some Lessons Learned from a Real-World Case Study. <i>Human-environment Interactions</i> , 2017 , 291-318		
2	Biofuel and the world population problem. <i>Advances in Agroecology</i> , 2012 , 15-50		
1	Facing the tragedy of change in the semiotic process: the role of science. <i>International Journal of Sustainable Development</i> , 2019 , 22, 88	2.5	