Marcos H Costa

List of Publications by Year
in descending order

113 papers	9,059 citations	41344 49 h-index	42399 92 g-index
114 all docs	114 docs citations	114 times ranked	11129 citing authors

#	Article	IF	Citations
1	Effects of large-scale changes in land cover on the discharge of the Tocantins River, Southeastern Amazonia. Journal of Hydrology, 2003, 283, 206-217.	5.4	585
2	Evaluation of MODIS NPP and GPP products across multiple biomes. Remote Sensing of Environment, 2006, 102, 282-292.	11.0	540
3	Amazonia revealed: forest degradation and loss of ecosystem goods and services in the Amazon Basin. Frontiers in Ecology and the Environment, 2007, 5, 25-32.	4.0	439
4	Pervasive transition of the Brazilian land-use system. Nature Climate Change, 2014, 4, 27-35.	18.8	407
5	Combined Effects of Deforestation and Doubled Atmospheric CO2Concentrations on the Climate of Amazonia. Journal of Climate, 2000, 13, 18-34.	3.2	336
6	Regional climate change over eastern Amazonia caused by pasture and soybean cropland expansion. Geophysical Research Letters, 2007, 34, .	4.0	270
7	Surface water dynamics in the Amazon Basin: Application of satellite radar altimetry. Journal of Geophysical Research, 2002, 107, LBA 26-1.	3.3	248
8	Confronting model predictions of carbon fluxes with measurements of Amazon forests subjected to experimental drought. New Phytologist, 2013, 200, 350-365.	7.3	247
9	The influence of historical and potential future deforestation on the stream flow of the Amazon River â€“ Land surface processes and atmospheric feedbacks. Journal of Hydrology, 2009, 369, 165-174.	5.4	240
10	Effects of Amazon and Central Brazil deforestation scenarios on the duration of the dry season in the arc of deforestation. International Journal of Climatology, 2010, 30, 1970-1979.	3.5	225
11	VariaÃ§Ã£o espacial e temporal da precipitaÃ§Ã£o no Estado do ParÃ¡. Acta Amazonica, 2005, 35, 207-214.	0.7	223
12	Widespread decline in greenness of Amazonian vegetation due to the 2010 drought. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	200
13	Patterns of land use, extensification, and intensification of Brazilian agriculture. Global Change Biology, 2016, 22, 2887-2903.	9.5	198
14	Green Surprise? How Terrestrial Ecosystems Could Affect Earth's Climate. Frontiers in Ecology and the Environment, 2003, 1, 38.	4.0	181
15	Dependence of hydropower energy generation on forests in the Amazon Basin at local and regional scales. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9601-9606.	7.1	180
16	Climate-regulation services of natural and agricultural ecoregions of the Americas. Nature Climate Change, 2012, 2, 177-181.	18.8	165
17	Toward an integrated monitoring framework to assess the effects of tropical forest degradation and recovery on carbon stocks and biodiversity. Global Change Biology, 2016, 22, 92-109.	9.5	165
18	El NiÃ±o-Southern oscillation and the climate, ecosystems and rivers of Amazonia. Global Biogeochemical Cycles, 2002, 16, 79-1-79-20.	4.9	162

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19	INCORPORATING DYNAMIC VEGETATION COVER WITHIN GLOBAL CLIMATE MODELS. , 2000, 10, 1620-1632.		160
20	Projections of climate change effects on discharge and inundation in the Amazon basin. Climatic Change, 2016, 136, 555-570.	3.6	147
21	Effects of land cover change on evapotranspiration and streamflow of small catchments in the Upper Xingu River Basin, Central Brazil. Journal of Hydrology: Regional Studies, 2015, 4, 108-122.	2.4	142
22	Water balance of the Amazon Basin: Dependence on vegetation cover and canopy conductance. Journal of Geophysical Research, 1997, 102, 23973-23989.	3.3	130
23	Climate change in Amazonia caused by soybean cropland expansion, as compared to caused by pastureland expansion. Geophysical Research Letters, 2007, 34, .	4.0	127
24	Simulating the surface waters of the Amazon River basin: impacts of new river geomorphic and flow parameterizations. Hydrological Processes, 2008, 22, 2542-2553.	2.6	126
25	MODIS land cover and LAI collection 4 product quality across nine sites in the western hemisphere. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1843-1857.	6.3	119
26	Trends in the hydrologic cycle of the Amazon Basin. Journal of Geophysical Research, 1999, 104, 14189-14198.	3.3	118
27	Atmospheric versus vegetation controls of Amazonian tropical rain forest evapotranspiration: Are the wet and seasonally dry rain forests any different?. Journal of Geophysical Research, 2010, 115, .	3.3	118
28	Deforestation and climate feedbacks threaten the ecological integrity of southâ€"southeastern Amazonia. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120155.	4.0	118
29	Evidence that deforestation affects the onset of the rainy season in Rondonia, Brazil. Journal of Geophysical Research, 2011, 116, .	3.3	116
30	Spatially explicit valuation of the Brazilian Amazon Forestâ€™s Ecosystem Services. Nature Sustainability, 2018, 1, 657-664.	23.7	113
31	Do dynamic global vegetation models capture the seasonality of carbon fluxes in the Amazon basin? A dataâ€model intercomparison. Global Change Biology, 2017, 23, 191-208.	9.5	106
32	Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. Agricultural and Forest Meteorology, 2014, 191, 33-50.	4.8	105
33	The fate of Amazonian ecosystems over the coming century arising from changes in climate, atmospheric <scp>CO</scp>_{2,} and land use. Global Change Biology, 2015, 21, 2569-2587.	9.5	97
34	Long-term simulations of discharge and floods in the Amazon Basin. Journal of Geophysical Research, 2002, 107, LBA 11-1.	3.3	96
35	Green surprise? How terrestrial ecosystems could affect earthâ€™s climate. Frontiers in Ecology and the Environment, 2003, 1, 38-44.	4.0	96
36	Comment on â€œDrought-Induced Reduction in Global Terrestrial Net Primary Production from 2000 Through 2009â€. Science, 2011, 333, 1093-1093.	12.6	95

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37	Large-scale expansion of agriculture in Amazonia may be a no-win scenario. Environmental Research Letters, 2013, 8, 024021.	5.2	93
38	Feedbacks between deforestation, climate, and hydrology in the Southwestern Amazon: implications for the provision of ecosystem services. Landscape Ecology, 2014, 29, 261-274.	4.2	89
39	Effects of Deforestation on the Onset of the Rainy Season and the Duration of Dry Spells in Southern Amazonia. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5268-5281.	3.3	85
40	A comparison of precipitation datasets for the Amazon Basin. Geophysical Research Letters, 1998, 25, 155-158.	4.0	81
41	Increased climate risk in Brazilian double cropping agriculture systems: Implications for land use in Northern Brazil. Agricultural and Forest Meteorology, 2016, 228-229, 286-298.	4.8	75
42	Historical land use change and associated carbon emissions in Brazil from 1940 to 1995. Global Biogeochemical Cycles, 2012, 26, .	4.9	70
43	Climate Change after Tropical Deforestation: Seasonal Variability of Surface Albedo and Its Effects on Precipitation Change. Journal of Climate, 2003, 16, 2099-2104.	3.2	67
44	Seasonal changes in leaf area of Amazon forests from leaf flushing and abscission. Journal of Geophysical Research, 2012, 117, .	3.3	64
45	Deforestation causes different subregional effects on the Amazon bioclimatic equilibrium. Geophysical Research Letters, 2013, 40, 3618-3623.	4.0	62
46	Evolution of rain and photoperiod limitations on the soybean growing season in Brazil: The rise (and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.8	59
47	Overview of the Large-Scale Biosphereâ€"Atmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). Agricultural and Forest Meteorology, 2013, 182-183, 111-127.	4.8	55
48	Floodplain ecosystem processes. Geophysical Monograph Series, 2009, , 525-541.	0.1	54
49	Climate Change and Intense Irrigation Growth in Western Bahia, Brazil: The Urgent Need for Hydroclimatic Monitoring. Water (Switzerland), 2019, 11, 933.	2.7	54
50	Amazon Hydrology From Space: Scientific Advances and Future Challenges. Reviews of Geophysics, 2021, 59, e2020RG000728.	23.0	53
51	Improving simulated Amazon forest biomass and productivity by including spatial variation in biophysical parameters. Biogeosciences, 2013, 10, 2255-2272.	3.3	52
52	The southern Amazon rainy season: The role of deforestation and its interactions with largeâ€scale mechanisms. International Journal of Climatology, 2020, 40, 2328-2341.	3.5	51
53	Seasonal leaf dynamics in an Amazonian tropical forest. Forest Ecology and Management, 2009, 258, 1161-1165.	3.2	47
54	A biophysical model of Sugarcane growth. GCB Bioenergy, 2012, 4, 36-48.	5.6	40

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55	Nitrogen-Use Efficiency, Nitrous Oxide Emissions, and Cereal Production in Brazil: Current Trends and Forecasts. PLoS ONE, 2015, 10, e0135234.	2.5	40
56	Climate risks to Amazon agriculture suggest a rationale to conserve local ecosystems. Frontiers in Ecology and the Environment, 2019, 17, 584-590.	4.0	36
57	Pathways for recent Cerrado soybean expansion: extending the soy moratorium and implementing integrated crop livestock systems with soybeans. Environmental Research Letters, 2019, 14, 044029.	5.2	36
58	Tradeoffs in the quest for climate smart agricultural intensification in Mato Grosso, Brazil. Environmental Research Letters, 2018, 13, 064025.	5.2	35
59	Fraction of photosynthetically active radiation absorbed by Amazon tropical forest: A comparison of field measurements, modeling, and remote sensing. Journal of Geophysical Research, 2005, 110, .	3.3	33
60	Changing Amazon biomass and the role of atmospheric CO₂ concentration, climate, and land use. Global Biogeochemical Cycles, 2016, 30, 18-39.	4.9	32
61	Inter-annual variability of carbon and water fluxes in Amazonian forest, Cerrado and pasture sites, as simulated by terrestrial biosphere models. Agricultural and Forest Meteorology, 2013, 182-183, 145-155.	4.8	30
62	Large-scale hydrological impacts of tropical forest conversion. , 2005, , 590-597.		28
63	Cerrado Conservation is Essential to Protect the Amazon Rainforest. Ambio, 2010, 39, 580-584.	5.5	27
64	Carbon stocks and dynamics of different land uses on the Cerrado agricultural frontier. PLoS ONE, 2020, 15, e0241637.	2.5	25
65	Historical reconstruction of land use in the Brazilian Amazon (1940â€“1995). Journal of Land Use Science, 2011, 6, 33-52.	2.2	24
66	Geographic trends and information deficits in Amazonian conservation research. Biodiversity and Conservation, 2015, 24, 2853-2863.	2.6	24
67	Influence of Land Use and Land Cover on Hydraulic and Physical Soil Properties at the Cerrado Agricultural Frontier. Agriculture (Switzerland), 2019, 9, 24.	3.1	23
68	A simple tropical ecosystem model of carbon, water and energy fluxes. Ecological Modelling, 2004, 176, 291-312.	2.5	21
69	Characterizing patterns of agricultural land use in Amazonia by merging satellite classifications and census data. Global Biogeochemical Cycles, 2002, 16, 18-1-18-14.	4.9	20
70	Mecanismos de controle da variaÃ§Ã£o sazonal da transpiraÃ§Ã£o de uma floresta tropical no nordeste da amazÃ´nia. Acta Amazonica, 2005, 35, 223-229.	0.7	18
71	Effects of climatic variability and deforestation on surface water regimes. Geophysical Monograph Series, 2009, , 543-553.	0.1	18
72	A macroscale hydrological data set of river flow routing parameters for the Amazon Basin. Journal of Geophysical Research, 2002, 107, LBA 6-1.	3.3	17

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73	Vegetationâ€atmosphereâ€soil nutrient feedbacks in the Amazon for different deforestation scenarios. Journal of Geophysical Research, 2009, 114, .	3.3	17
74	Evaluation of a Dynamic Agroecosystem Model (Agro-IBIS) for Soybean in Southern Brazil. Earth Interactions, 2012, 16, 1-15.	1.5	17
75	Calibration and Validation of the Integrated Biosphere Simulator (IBIS) for a Brazilian Semiarid Region. Journal of Applied Meteorology and Climatology, 2013, 52, 2753-2770.	1.5	16
76	Comments on â€œThe Regional Evapotranspiration of the Amazonâ€. Journal of Hydrometeorology, 2004, 5, 1279-1280.	1.9	15
77	Monitoring carbon assimilation in South America's tropical forests: Model specification and application to the Amazonian droughts of 2005 and 2010. Remote Sensing of Environment, 2012, 117, 449-463.	11.0	15
78	Sources of Water Vapor to Economically Relevant Regions in Amazonia and the Effect of Deforestation. Journal of Hydrometeorology, 2017, 18, 1643-1655.	1.9	15
79	Soil Carbon Sequestration in Rainfed and Irrigated Production Systems in a New Brazilian Agricultural Frontier. Agriculture (Switzerland), 2020, 10, 156.	3.1	15
80	Historical Changes in Land Use and Suitability for Future Agriculture Expansion in Western Bahia, Brazil. Remote Sensing, 2021, 13, 1088.	4.0	15
81	Influence of climate variability, fire and phosphorus limitation on vegetation structure and dynamics of the Amazonâ€“Cerrado border. Biogeosciences, 2018, 15, 919-936.	3.3	14
82	ComparaÃ§Ã£o de produtos de precipitaÃ§Ã£o para a AmÃ©rica do Sul. Revista Brasileira De Meteorologia, 2009, 24, 461-472.	0.5	12
83	Challenges to Reproduce Vegetation Structure and Dynamics in Amazonia Using a Coupled Climateâ€“Biosphere Model. Earth Interactions, 2009, 13, 1-28.	1.5	12
84	Are capacity deficits in local government leaving the Amazon vulnerable to environmental change?. Land Use Policy, 2017, 69, 326-330.	5.6	11
85	A Remote Sensing Diagnosis of Water Use and Water Stress in a Region with Intense Irrigation Growth in Brazil. Remote Sensing, 2020, 12, 3725.	4.0	9
86	ClassificaÃ§Ã£o espectral de Ã¡rea plantada com a cultura da cana-de-aÃ§Ãºcar por meio da Ã¡rvore de decisÃ£o. Engenharia Agricola, 2012, 32, 369-380.	0.7	8
87	Chapter 6: Biogeochemical Cycles in the Amazon. , 2021, , .		7
88	Modeling the impact of net primary production dynamics on post-disturbance Amazon savannization. Anais Da Academia Brasileira De Ciencias, 2014, 86, 621-632.	0.8	6
89	Monitoring and mapping non-governmental conservation action in Amazonia. Land Use Policy, 2020, 94, 104556.	5.6	6
90	Understanding water and energy fluxes in the Amazonia: Lessons from an observationâ€model intercomparison. Global Change Biology, 2021, 27, 1802-1819.	9.5	6

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91	Estado-da-arte da simulaÃ§Ã£o da taxa de fixaÃ§Ã£o de carbono de ecossistemas tropicais. Revista Brasileira De Meteorologia, 2009, 24, 179-187.	0.5	5
92	Multi-site land surface model optimization: An exploration of objective functions. Agricultural and Forest Meteorology, 2013, 182-183, 168-176.	4.8	5
93	Coupling the terrestrial hydrology model with biogeochemistry to the integrated LAND surface model: Amazon Basin applications. Hydrological Sciences Journal, 2018, 63, 1954-1966.	2.6	5
94	Modeling radiative transfer in tropical rainforest canopies: sensitivity of simulated albedo to canopy architectural and optical parameters. Anais Da Academia Brasileira De Ciencias, 2011, 83, 1231-1242.	0.8	5
95	ComparaÃ§Ã£o de produtos de radiaÃ§Ã£o solar incidente Ã superfÃcie para a AmÃ©rica do Sul. Revista Brasileira De Meteorologia, 2010, 25, 469-478.	0.5	5
96	Coupled Atmosphere-Biosphere Models as a Tool for Conservation Planning and Policy. Natureza A Conservacao, 2011, 9, 145-151.	2.5	5
97	Performance evaluation of the SITEÂ® model to estimate energy flux in a tropical semi-deciduous forest of the southern Amazon Basin. International Journal of Biometeorology, 2011, 55, 303-312.	3.0	4
98	Predicting land cover changes in the Amazon rainforest: An oceanâ€atmosphereâ€biosphere problem. Geophysical Research Letters, 2012, 39, .	4.0	4
99	A multi-objective hierarchical calibration procedure for land surface/ecosystem models. Inverse Problems in Science and Engineering, 2013, 21, 357-386.	1.2	4
100	The data-model intercomparison project for the large-scale biosphereâ€“atmosphere experiment in Amazonia. Agricultural and Forest Meteorology, 2013, 182-183, 109-110.	4.8	4
101	Simulations of tropical rainforest albedo: is canopy wetness important?. Anais Da Academia Brasileira De Ciencias, 2011, 83, 1171-1180.	0.8	3
102	Vegetation patterns in South America associated with rising CO2: uncertainties related to sea surface temperatures. Theoretical and Applied Climatology, 2013, 111, 569-576.	2.8	3
103	Do Large Slaughterhouses Promote Sustainable Intensification of Cattle Ranching in Amazonia and the Cerrado?. Sustainability, 2018, 10, 3266.	3.2	3
104	When more trees mean more power. Nature Sustainability, 2020, 3, 410-411.	23.7	3
105	Water fluxes in the central Brazilian savanna: Seasonal patterns and land cover interdependencies as observed from GRACE, TRMM, and MODIS data. , 2012, , .		2
106	Response of South American Terrestrial Ecosystems to Future Patterns of Sea Surface Temperature. Advances in Meteorology, 2017, 2017, 1-16.	1.6	2
107	Correction to â€œSeasonal changes in leaf area of Amazon forests from leaf flushing and abscissionâ€. Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	1
108	Land-Atmosphere Interactions. Advances in Meteorology, 2016, 2016, 1-1.	1.6	1

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109	Chapter 23: Impacts of deforestation and climate change on biodiversity, ecological processes, and environmental adaptation. , 2021, , .		1
110	Collective action can avoid the â€œtragedy of the Amazon commonsâ€• Frontiers in Ecology and the Environment, 2020, 18, 430-431.	4.0	0
111	THE INFLUENCE OF ARCHITECTURAL AND SPECTRAL PARAMETERS OF A TROPICAL FOREST CANOPY UNDER ITS REFLECTANCE DESCRIBED BY IBIS MODEL. Revista Brasileira De Geofisica, 2013, 30, 495.	0.2	0
112	Chapter 7: Biogeophysical Cycles: Water Recycling, Climate Regulation. , 2021, , .		0
113	Chapter 5: The Physical hydroclimate system of the Amazon. , 2021, , .		0