Filippo Catani

List of Publications by Year
in descending order

97 papers	6,541 citations	71061 41 h-index	66879 78 g-index
122 all docs	122 docs citations	122 times ranked	4654 citing authors

#	Article	IF	Citations
1	Recommendations for the quantitative analysis of landslide risk. Bulletin of Engineering Geology and the Environment, 2014, 73, 209.	1.6	541
2	Artificial Neural Networks applied to landslide susceptibility assessment. Geomorphology, 2005, 66, 327-343.	1.1	458
3	Landslide susceptibility estimation by random forests technique: sensitivity and scaling issues. Natural Hazards and Earth System Sciences, 2013, 13, 2815-2831.	1.5	444
4	Monitoring, prediction, and early warning using ground-based radar interferometry. Landslides, 2010, 7, 291-301.	2.7	305
5	Landslide susceptibility modeling applying machine learning methods: A case study from Longju in the Three Gorges Reservoir area, China. Computers and Geosciences, 2018, 112, 23-37.	2.0	262
6	Landslide prediction, monitoring and early warning: a concise review of state-of-the-art. Geosciences Journal, 2017, 21, 1033-1070.	0.6	245
7	Landslide hazard and risk mapping at catchment scale in the Arno River basin. Landslides, 2005, 2, 329-342.	2.7	235
8	Persistent Scatterer Interferometry (PSI) Technique for Landslide Characterization and Monitoring. Remote Sensing, 2013, 5, 1045-1065.	1.8	233
9	Rainfall thresholds for the forecasting of landslide occurrence at regional scale. Landslides, 2012, 9, 485-495.	2.7	223
10	Statistical analysis of drainage density from digital terrain data. Geomorphology, 2001, 36, 187-202.	1.1	204
11	An empirical geomorphologyâ€based approach to the spatial prediction of soil thickness at catchment scale. Water Resources Research, 2010, 46, .	1.7	126
12	Persistent Scatterers Interferometry Hotspot and Cluster Analysis (PSI-HCA) for detection of extremely slow-moving landslides. International Journal of Remote Sensing, 2012, 33, 466-489.	1.3	125
13	HIRESSS: a physically based slope stability simulator for HPC applications. Natural Hazards and Earth System Sciences, 2013, 13, 151-166.	1.5	124
14	Displacement prediction of step-like landslide by applying a novel kernel extreme learning machine method. Landslides, 2018, 15, 2211-2225.	2.7	123
15	Technical Note: Use of remote sensing for landslide studies in Europe. Natural Hazards and Earth System Sciences, 2013, 13, 299-309.	1.5	115
16	Landslides triggered by rainfall: A semi-automated procedure to define consistent intensityâ€"duration thresholds. Computers and Geosciences, 2014, 63, 123-131.	2.0	114
17	On the application of SAR interferometry to geomorphological studies: estimation of landform attributes and mass movements. Geomorphology, 2005, 66, 119-131.	1.1	112
18	Geomorphic indexing of landslide dams evolution. Engineering Geology, 2016, 208, 1-10.	2.9	103

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19	Analysing the relationship between rainfalls and landslides to define a mosaic of triggering thresholds for regional-scale warning systems. Natural Hazards and Earth System Sciences, 2014, 14, 2637-2648.	1.5	98
20	Quantitative hazard and risk assessment for slow-moving landslides from Persistent Scatterer Interferometry. Landslides, 2014, 11, 685-696.	2.7	94
21	Landslide susceptibility map refinement using PSInSAR data. Remote Sensing of Environment, 2016, 184, 302-315.	4.6	93
22	Statistical and environmental analyses for the definition of a regional rainfall threshold system for landslide triggering in Tuscany (Italy). Journal of Chinese Geography, 2012, 22, 617-629.	1.5	81
23	Landslide susceptibility assessment in complex geological settings: sensitivity to geological information and insights on its parameterization. Landslides, 2020, 17, 2443-2453.	2.7	81
24	Updating and tuning a regional-scale landslide early warning system. Landslides, 2013, 10, 91-97.	2.7	80
25	Technical Note: An operational landslide early warning system at regional scale based on spaceâ€“time-variable rainfall thresholds. Natural Hazards and Earth System Sciences, 2015, 15, 853-861.	1.5	80
26	Application of a physically based model to forecast shallow landslides at a regional scale. Natural Hazards and Earth System Sciences, 2018, 18, 1919-1935.	1.5	78
27	Combination of Rainfall Thresholds and Susceptibility Maps for Dynamic Landslide Hazard Assessment at Regional Scale. Frontiers in Earth Science, 2018, 6, .	0.8	75
28	A Tool for Classification and Regression Using Random Forest Methodology: Applications to Landslide Susceptibility Mapping and Soil Thickness Modeling. Environmental Modeling and Assessment, 2017, 22, 201-214.	1.2	64
29	Detecting fingerprints of landslide drivers: A MaxEnt model. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1367-1386.	1.0	63
30	Landslide Characterization Applying Sentinel-1 Images and InSAR Technique: The Muyubao Landslide in the Three Gorges Reservoir Area, China. Remote Sensing, 2020, 12, 3385.	1.8	62
31	Rapidly Evolving Controls of Landslides After a Strong Earthquake and Implications for Hazard Assessments. Geophysical Research Letters, 2021, 48, .	1.5	61
32	Improving basin scale shallow landslide modelling using reliable soil thickness maps. Natural Hazards, 2012, 61, 85-101.	1.6	59
33	GIS techniques for regional-scale landslide susceptibility assessment: the Sicily (Italy) case study. International Journal of Geographical Information Science, 2013, 27, 1433-1452.	2.2	56
34	Quantitative comparison between two different methodologies to define rainfall thresholds for landslide forecasting. Natural Hazards and Earth System Sciences, 2015, 15, 2413-2423.	1.5	55
35	Geomorphological investigations on landslide dams. Geoenvironmental Disasters, 2015, 2, .	1.8	52
36	Landslide detection by deep learning of non-nadiral and crowdsourced optical images. Landslides, 2021, 18, 1025-1044.	2.7	52

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37	A spatially explicit database of wind disturbances in European forests over the periodÂ2000â€“2018. Earth System Science Data, 2020, 12, 257-276.	3.7	52
38	Risk analysis for the Ancona landslideâ€"II: estimation of risk to buildings. Landslides, 2015, 12, 83-100.	2.7	49
39	Web data mining for automatic inventory of geohazards at national scale. Applied Geography, 2013, 43, 147-158.	1.7	48
40	Landslide Susceptibility Mapping at National Scale: The Italian Case Study. , 2013, , 287-295.		48
41	Brief communication "A prototype forecasting chain for rainfall induced shallow landslides". Natural Hazards and Earth System Sciences, 2013, 13, 771-777.	1.5	47
42	Effect of antecedent rainfall conditions and their variations on shallow landslide-triggering rainfall thresholds in South Korea. Landslides, 2021, 18, 569-582.	2.7	47
43	Subsidence mapping at regional scale using persistent scatters interferometry (PSI): The case of Tuscany region (Italy). International Journal of Applied Earth Observation and Geoinformation, 2016, 52, 328-337.	1.4	44
44	Hydrogeological hazard and risk in archaeological sites: some case studies in Italy. Journal of Cultural Heritage, 2000, 1, 117-125.	1.5	43
45	Urban planning, flood risk and public policy: The case of the Arno River, Firenze, Italy. Applied Geography, 2012, 34, 205-218.	1.7	42
46	Landslides in the Mountain Region of Rio de Janeiro: A Proposal for the Semi-Automated Definition of Multiple Rainfall Thresholds. Geosciences (Switzerland), 2019, 9, 203.	1.0	40
47	Satellite interferometric data for landslide intensity evaluation in mountainous regions. International Journal of Applied Earth Observation and Geoinformation, 2020, 87, 102028.	1.4	40
48	Enhanced dynamic landslide hazard mapping using MT-InSAR method in the Three Gorges Reservoir Area. Landslides, 2022, 19, 1585-1597.	2.7	40
49	Rapid Mapping of Landslides on SAR Data by Attention U-Net. Remote Sensing, 2022, 14, 1449.	1.8	34
50	Characteristic comparison of seepage-driven and buoyancy-driven landslides in Three Gorges Reservoir area, China. Engineering Geology, 2022, 301, 106590.	2.9	34
51	An Inventory-Based Approach to Landslide Susceptibility Assessment and its Application to the Virginio River Basin, Italy. Environmental and Engineering Geoscience, 2004, 10, 203-216.	0.3	33
52	Rapid assessment of flood susceptibility in urbanized rivers using digital terrain data: Application to the Arno river case study (Firenze, northern Italy). Applied Geography, 2014, 54, 35-53.	1.7	32
53	Modeling of the Guagua Pichincha volcano (Ecuador) lahars. Physics and Chemistry of the Earth, 2002, 27, 1587-1599.	1.2	30
54	Snow accumulation/melting model (SAMM) for integrated use in regional scale landslide early warning systems. Hydrology and Earth System Sciences, 2013, 17, 1229-1240.	1.9	29

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55	Spatial patterns of landslide dimension: A tool for magnitude mapping. Geomorphology, 2016, 273, 361-373.	1.1	29
56	Mapping natural and urban environments using airborne multi-sensor ADS40â€“MIVISâ€“LiDAR synergies. International Journal of Applied Earth Observation and Geoinformation, 2013, 23, 313-323.	1.4	28
57	Validation of landslide hazard models using a semantic engine on online news. Applied Geography, 2017, 82, 59-65.	1.7	28
58	Analysis of Landslide Movements Using Interferometric Synthetic Aperture Radar: A Case Study in Hunza-Nagar Valley, Pakistan. Remote Sensing, 2020, 12, 2054.	1.8	28
59	Different Approaches to Use Morphometric Attributes in Landslide Susceptibility Mapping Based on Meso-Scale Spatial Units: A Case Study in Rio de Janeiro (Brazil). Remote Sensing, 2020, 12, 1826.	1.8	26
60	Surface temperature controls the pattern of post-earthquake landslide activity. Scientific Reports, 2022, 12, 988.	1.6	24
61	Integration of Remotely Sensed Soil Sealing Data in Landslide Susceptibility Mapping. Remote Sensing, 2020, 12, 1486.	1.8	23
62	Exploring a landslide inventory created by automated web data mining: the case of Italy. Landslides, 2022, 19, 841-853.	2.7	23
63	Risk analysis for the Ancona landslideâ€"I: characterization of landslide kinematics. Landslides, 2015, 12, 69-82.	2.7	20
64	Integration of Remote Sensing Techniques in Different Stages of Landslide Response. , 2007, , 251-260.		19
65	Improving Landslide Detection on SAR Data Through Deep Learning. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	16
66	Assessing the importance of conditioning factor selection in landslide susceptibility for the province of Belluno (region of Veneto, northeastern Italy). Natural Hazards and Earth System Sciences, 2022, 22, 1395-1417.	1.5	15
67	Augmented Virtuality for Coastal Management: A Holistic Use of In Situ and Remote Sensing for Large Scale Definition of Coastal Dynamics. ISPRS International Journal of Geo-Information, 2018, 7, 92.	1.4	14
68	Fusion of GNSS and Satellite Radar Interferometry: Determination of 3D Fine-Scale Map of Present-Day Surface Displacements in Italy as Expressions of Geodynamic Processes. Remote Sensing, 2019, 11, 394.	1.8	14
69	PSI-HSR: a new approach for representing Persistent Scatterer Interferometry (PSI) point targets using the hue and saturation scale. International Journal of Remote Sensing, 2010, 31, 2189-2196.	1.3	13
70	Assessment of hyperspectral MIVIS sensor capability for heterogeneous landscape classification. ISPRS Journal of Photogrammetry and Remote Sensing, 2012, 74, 175-184.	4.9	12
71	Scale-dependent relations in land cover biophysical dynamics. Ecological Modelling, 2011, 222, 3285-3290.	1.2	9
72	Integration of Satellite Interferometric Data in Civil Protection Strategies for Landslide Studies at a Regional Scale. Remote Sensing, 2021, 13, 1881.	1.8	9

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73	A methodological approach of QRA for slow-moving landslides at a regional scale. Landslides, 2022, 19, 1539-1561.	2.7	9
74	Persistent Scatterer Interferometry (PSI) Technique for Landslide Characterization and Monitoring. , 2014, , 351-357.		8
75	ES4LUCC: A GIS-tool for remotely monitoring landscape dynamics. Computers and Geosciences, 2012, 49, 72-80.	2.0	5
76	DInSAR analysis of differential ground subsidence affecting urban areas along the Mexican Volcanic Belt (MVB). European Journal of Remote Sensing, 2008, , 103-113.	0.2	5
77	Deformation pattern in the underthrust carbonate-rich sequence of the Sibillini Thrust (central) Tj ETQq1 1 0.784314 rgBT /Overlock 10 53-69.	2.2	4
78	Definition of a Fully Functional EWS Based on Rainfall Thresholds, the Case of Study of Tuscany Region. , 2017, , 169-174.		4
79	Pinpointing Early Signs of Impending Slope Failures From Space. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	4
80	Towards a National-Scale Dataset of Geotechnical and Hydrological Soil Parameters for Shallow Landslide Modeling. Data, 2022, 7, 37.	1.2	4
81	Prediction and Forecasting of Mass-Movements. , 2021, , .		3
82	The Use of Radar Interferometry in Landslide Monitoring. Environmental Science and Engineering, 2014, , 177-190.	0.1	3
83	Different Methods to Produce Distributed Soil Thickness Maps and Their Impact on the Reliability of Shallow Landslide Modeling at Catchment Scale. , 2013, , 127-133.		2
84	Application of GIS Techniques for Landslide Susceptibility Assessment at Regional Scale. , 2013, , 459-465.		2
85	Short Term Weather Forecasting for Shallow Landslide Prediction. , 2013, , 121-129.		2
86	Ten years of pluviometric analyses in Italy for civil protection purposes. Scientific Reports, 2021, 11, 20302.	1.6	2
87	Regional Scale Landslide Susceptibility Mapping in Emilia Romagna (Italy) as a Tool for Early Warning. , 2014, , 443-449.		1
88	A Cost Effective Methodology for the Rapid Evaluation of the Flood Susceptibility Along Anthropized Rivers. , 2015, , 849-852.		1
89	How to Improve the Accuracy of Landslide Susceptibility Maps Using PSInSAR Data. , 2017, , 965-971.		1
90	EGU 2019 Sergey Soloviev Medal Lecture. Landslides, 2019, 16, 1613-1617.	2.7	0

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91	PSI technique for quantitative hazard and risk assessment of landslides. Rendiconti Online Societa Geologica Italiana, 0, 35, 296-299.	0.3	0
92	Advanced Technologies for Landslides (WCoE 2014â€"2017, IPL-196, IPL-198). , 2017, , 269-277.		0
93	Soil Characterization for Landslide Forecasting Models: A Case Study in the Northern Apennines (Central Italy). , 2017, , 381-388.		0
94	Damming Predisposition of River Networks: A Mapping Methodology. ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 127-132.	0.3	0
95	Sentinel-1 PSI Data for the Evaluation of Landslide Geohazard and Impact. ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 447-455.	0.3	0
96	Characterization of Hillslope Deposits for Physically-Based Landslide Forecasting Models. ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 265-272.	0.3	0
97	Advanced Technologies for Landslides (WCoE 2017â€"2020). ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 259-265.	0.3	0