Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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Google Scholar profile

Generated 2026-06-08 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

2,355	2,999	39	42
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

81.5% independent of 1,629 classified citing papers

Citation type	Count
Independent	1,327
Self-citation	86
Co-author	216
Same-institution	0

726 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher established a foundational experimental framework for analyzing fine-grain movement in unconsolidated soils under heavy rainfall, significantly advancing the understanding of soil instability mechanisms.

CLAIM: The researcher's primary contribution lies in establishing a foundational experimental framework for analyzing the moving characteristics of fine grains in wide grading unconsolidated soil under heavy rainfall, as demonstrated by the seminal 2017 paper. This work serves as the cornerstone for subsequent investigations into particle dynamics and geotechnical stability.

ORIGINALITY: This line of work appears to address critical gaps in understanding how fine particles behave within porous media during extreme weather events. By progressing from macroscopic experimental studies to micromechanical insights in analog pore systems, the researcher expanded the theoretical scope from general soil characteristics to specific clogging and unclogging mechanisms. The inclusion of case studies on urbanization-related landslides further suggests an effort to bridge fundamental soil mechanics with real-world disaster prevention.

SIGNIFICANCE: The impact of this research is evidenced by substantial citation metrics, with the core paper accumulating 177 citations and the 2019 landslide study reaching 219 citations. Notably, 81.5% of the 1,629 classified citations originate from independent researchers, indicating that the community widely recognizes and builds upon these findings beyond the researcher's immediate circle. This high degree of independent uptake underscores the broad relevance and utility of the proposed frameworks in both academic and practical contexts.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 263 · **2 flagged influential by Semantic Scholar**

CORE PAPER

Experimental study on the moving characteristics of fine grains in wide grading unconsolidated soil under heavy rainfall

2017 · 177 citations (GS)

Field-normalised: 137 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Uncertainty quantification of in situ horizontal stress with pressuremeter using a statistical inverse analysis method	University of Alberta	Canada	—
2	General Department of Natural Resources and Watershed Management, Mazandaran, Sari, Iran	—	—	—
3	Controls on Landslide Size: Insights from Field Survey Data	Kingston and St George's University, Sheffield Emergency Care Forum, University of Bath	United Kingdom	—
4	Effects of changes in soil properties caused by progressive infiltration of rainwater on rainfall-induced landslides	Lanzhou University, Nanjing University of Information Science and Technology	China	—
5	Effects of preferential flow induced by desiccation cracks on slope stability	China University of Geosciences	China	—
6	Transmission effect of eroded particles in suffusion using the CFD-DEM coupling method	Shenzhen University	China	—
7	A semi-resolved CFD-DEM model for seepage-induced fine particle migration in gap-graded soils	Dalian University of Technology	China	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Practical estimation of compression behavior of clayey/silty sands using equivalent void-ratio concept	Hong Kong University of Science and Technology, The Hong Kong University of Science and Technology	China, Hong Kong	—
9	A homogenization equation for the small strain stiffness of gap-graded granular materials	Hohai University, Hong Kong University of Science and Technology, The Hong Kong University of Science and Technology	China, Hong Kong	—
10	Physical model test on deformation and failure mechanism of deposit landslide under gradient rainfall.	Hohai University, University of Waterloo	Canada, China	—
11	Micro pore analysis of suffusion in filter layer using tri-layer CFD–DEM model	Hong Kong Polytechnic University, Saudi Heart Association, Shenzhen University	China, Hong Kong, Saudi Arabia	—
12	The effects of rainfall, soil type and slope on the processes and mechanisms of rainfall-induced shallow landslides	Sichuan University	China	—
13	Theoretical, experimental, and numerical studies of flow field characteristics and incipient scouring erosion for slope with rigid vegetations	City University of Hong Kong, Tsinghua University	China	—
14	Research on the rainfall-induced regional slope failures along the Yangtze River of Anhui, China	China University of Geosciences, PowerChina Jiangxi Electric Power Engineering Co., Ltd.	China	—
15	Experimental study on the regulation function of slit dam against debris flows	Chinese Academy of Sciences	China	—
16	Physical and analytical modeling of soil loss caused by a defective sewer pipe with different defect locations	City University of Hong Kong, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Ningbo University	China	—
17	Fluid-driven particle migration and its impact on hydraulic transmissivity of stressed filled fractures	China University of Geosciences, Texas A&M University	China	—
18	A generalized interpolation material point method for modelling coupled seepage-erosion-deformation process within unsaturated soils	Center for Excellence in Tibetan Plateau Earth Sciences, École Nationale des Travaux Publics de l'État, Sichuan University	China, France	—
19	Rainstorm sediment events in heterogeneous karst small watersheds: Process characteristics, prediction modeling and management enlightenment	Guizhou Normal University	China	—
20	Modeling of rainfall-induced landslides using a full-scale flume test	Korea Railroad Research Institute, National Disaster Management Research Institute, Yonsei University	South Korea	—
21	Study on particle loss-induced deformation of gap-graded soils: role of particle stress	Dalian University of Technology, Hebei University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
22	Comprehensive analysis and numerical simulation of a large debris flow in the Meilong catchment, China	Chengdu University of Technology, Chinese Academy of Sciences, Institute of Mountain Hazards and Environment	China, Germany, PR China	—
23	Investigating the coupling effects of rainfall intensity and slope inclination on soil-rock mixture slope stability and failure modes	Chongqing Three Gorges University	China	—
24	Time-dependent slope stability during intense rainfall with stratified soil water content.	Chengdu Surveying Geotechnical Research Institute, China University of Geosciences, Texas A&M University	China	—
25	Experimental study on impact and deposition behaviours of multiple surges of channelized debris flow on a flexible barrier	Southern University of Science and Technology, The Hong Kong Polytechnic University	China	—
26	Research on the prediction of infiltration depth of Xiashu loess slopes based on particle swarm optimized back propagation (PSO-BP) neural network	Geological Exploration Technology Institute of Jiangsu Province, Hohai University	China	—
27	A new thermo-mechanical model for structured soil	Hong Kong University of Science and Technology, The Hong Kong University of Science and Technology	China, Hong Kong	—
28	A novel hybrid CFD-DEM model for gap-graded particles with two-phase fluids	Hong Kong University of Science and Technology	Hong Kong	—
29	Quantifying uncertainty of in situ horizontal stress and geotechnical parameters using a Bayesian inference approach for pressuremeter tests	University of Alberta	Canada	—
30	A flume model test to investigate initiation mechanisms of rainstorm-induced shallow landslides	Colorado School of Mines, University of Bologna, University of Parma	Italy, United States	—

Showing the 30 most-cited of 104 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Clogging and unclogging of fine particles in porous media: Micromechanical insights from an analog pore system

2024 · Water Resources Research 60 (1), e2023WR034628, 2024 · 51 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Fluid-driven particle migration and its impact on hydraulic transmissivity of stressed filled fractures	China University of Geosciences, Texas A&M University	China	**Influential**

No.	Citing paper	Citing institution(s)	Country	S2
2	Fluid-driven particle erosion promotes the frictional instability of Granular Shear-Zone gouge	China University of Geosciences, Shenzhen Research Institute of China University of Geosciences, Technical University of Munich	China, Germany	—
3	Particle Migration Mechanisms Under Various Fingering Patterns During Supercritical Carbon Dioxide Injection into Saline Water	Dalian University of Technology, State Key Laboratory for Geomechanics and Deep Underground Engineering, Tongji University	China	—
4	Effects of soybean urease induced carbonate precipitation on the seed emergence and seedling growth of Caragana korshinskii Kom and its application in wind ...	Zhejiang University	China	—
5	Internal erosion in granular soils with different microstructures under cyclically increased hydraulic gradients	Sichuan University	China	—
6	The effects of temporal rainfall patterns on the triggering of runoff-generated debris flows	Chengdu University of Technology, Zhejiang University	China, PR China	—
7	Mechanisms of suspended microparticle clogging in constricted channels: Insights from a lattice Boltzmann-discrete element simulation	Abylkas Saginov Karaganda Technical University, Perm National Research Polytechnic University, University of Liverpool	China, Kazakhstan, Russia	—
8	Pore-scale study of non-clogging accumulation effects on microgel particle transport and multiphase displacements in porous media	Changqing Oilfield Company, KTH Royal Institute of Technology, Tsinghua University	China, Sweden	—
9	The temporal and spatial evolution law of seepage parameters in the filter based on the CFD-DEM coupled flow-solid approach	—	—	—
10	Insights into hydraulic gradients on slurry infiltration characteristics in saturated sands	—	—	—
11	Studies on the effect of microplastics on the adsorption and migration of Phenanthrene in river sediment	Chang'an University	China	—
12	Porosity-Controlled Flow Instability and Vibration Response in Conical Strainers: An Integrated Hydraulic-Structural Evaluation	Caltex Riau Polytechnic, Universiti Tun Hussein Onn Malaysia	Indonesia, Malaysia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

The cost of rapid and haphazard urbanization: lessons learned from the Freetown landslide disaster

2019 · 219 citations (GS)

Field-normalised: 160 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Continuing from the Sendai Framework midterm: Opportunities for urban digital twins in disaster risk management	National University of Singapore, National University of Singapore; University of the Philippines	Singapore, Singapore; Philippines	—
2	Developing a hybrid deep learning model with explainable artificial intelligence (XAI) for enhanced landslide susceptibility modeling and management	Dyal Singh College, Jamia Millia Islamia, King Khalid University	India, Kingdom of Saudi Arabia, Saudi Arabia	—
3	Flood disaster hazards; causes, impacts and management: a state-of-the-art review	—	—	—
4	Recent advancements of landslide hydrology	Azienda Ospedaliera Universitaria Università degli Studi della Campania Luigi Vanvitelli, Delft University of Technology	Italy, Netherlands	—
5	How climate change and unplanned urban sprawl bring more landslides	Alexander von Humboldt Foundation, GFZ Helmholtz Centre for Geosciences, Indian Institute of Technology Roorkee	Germany, India, Italy	—
6	A novel method using explainable artificial intelligence (XAI)-based Shapley Additive Explanations for spatial landslide prediction using Time-Series SAR dataset	University of Technology Sydney	Australia	—
7	Landslide susceptibility assessment of the Wanzhou district: Merging landslide susceptibility modelling (LSM) with InSAR-derived ground deformation map	Chapman University, China University of Geosciences, GFZ Helmholtz Centre for Geosciences	China, Germany, Italy	—
8	Landslide risk management: from hazard to disaster risk reduction	International Consortium on Landslides, Universidad Nacional Autónoma de México	Japan, Mexico	—
9	African urbanisation at the confluence of informality and climate change	Harvard University, The University of Melbourne	Australia, United States	—
10	Flash flood detection and susceptibility mapping in the Monsoon period by integration of optical and radar satellite imagery using an improvement of a ...	Korea Institute of Civil Engineering and Building Technology, Sejong University	South Korea	—
11	An integrated approach to investigate the coupling coordination between urbanization and flood disasters in China	Nanjing University, University of Reading	China, United Kingdom	—
12	Change detection-based co-seismic landslide mapping through extended morphological profiles and ensemble strategy	Chengdu University of Technology, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	—
13	Evaluation and prediction of compound geohazards in highly urbanized regions across China's Greater Bay Area	Chinese Academy of Sciences, Sun Yat-sen University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
14	Landslide susceptibility modeling by interpretable neural network	UCLA	United States	—
15	Prediction of landslide susceptibility in Rudraprayag, India using novel ensemble of conditional probability and boosted regression tree-based on cross-validation ...	Duy Tan University, Tarbiat Modares University, Ton Duc Thang University	Austria, India, Iran	—
16	Coupling coordination and spatiotemporal dynamic evolution between urbanization and geological hazards–A case study from China	State Key Laboratory of Hydrology Water Resources and Hydraulic Engineering	China	—
17	Satellite remote sensing data reveal increased slope climbing of urban land expansion worldwide	Anhui Normal University, Beijing Municipal Ecological and Environmental Monitoring Center, Hohai University	China	—
18	Landslide susceptibility model using artificial neural network (ANN) approach in Langat river basin, Selangor, Malaysia	Durham University, National University of Malaysia	Malaysia, United Kingdom	—
19	Landslide dynamic susceptibility mapping in urban expansion area considering spatiotemporal land use and land cover change	China University of Geosciences, Jingzhou Central Hospital, University of Central Florida	China, United States	—
20	Disaster risk management	United Nations	United States	—
21	Exploring the dynamic impact of urbanization on landslide susceptibility in Sichuan Province using an explainable XGBoost model	China Huadian Corporation (China), Southwest Jiaotong University	China	—
22	Debris flows dynamic risk assessment and interpretable Shapley method-based driving mechanisms exploring–A case study of the upper reach of the Min ...	Sichuan University, Southwest Jiaotong University, Sun Yat-sen University	China	—
23	Quantifying the effect of precipitation on landslide hazard in urbanized and non-urbanized areas	Furman University, Stanford University	United States	—
24	Multicollinearity and spatial correlation analysis of landslide conditioning factors in Langat River Basin, Selangor	National University of Malaysia	Malaysia	—
25	A systematic review of landslide research in urban planning worldwide	University of Technology Malaysia	Malaysia	—
26	Landslide susceptibility mapping with GIS in high mountain area of Nepal: a comparison of four methods	Kyushu University	Japan	—
27	Evaluating thresholds: the impact of terrain modifications on landslide susceptibility in a mountainous city	National Institute of Forest Science, Seoul National University, The Korea Institute of Public Administration	South Korea	—
28	Assessment of landslide susceptibility and risk factors in China	Chinese Academy of Sciences, State Key Laboratory of Resources and Environmental Information System	China	—

No.	Citing paper	Citing institution(s)	Country	S2
29	The urban political ecology of 'haphazard urbanisation'and disaster risk creation in the Kathmandu valley, Nepal	Dublin City University, University of Wisconsin–Madison	Ireland, United States	—
30	A framework of biophilic urbanism for improving climate change adaptability in urban environments	Korea Advanced Institute of Science and Technology	South Korea	—

Showing the 30 most-cited of 147 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher developed a novel Discrete Element Method framework for simulating sand production, establishing a foundational approach for analyzing granular flow dynamics and barrier interactions in geotechnical engineering.

The researcher's significant contribution centers on a 2016 core paper titled 'A new approach to DEM simulation of sand production,' which introduced a distinct methodology for modeling granular material behavior. This work serves as the technical foundation for subsequent research, including studies on particle size effects in granular flows and landslide reconstruction using seismic signals and numerical simulations.

This line of work appears to address the challenge of accurately simulating complex granular interactions, extending from subsurface sand production to large-scale geohazards like landslides. The progression from the 2016 core paper to follow-up studies in 2018 and 2020 suggests a systematic expansion of the initial simulation framework to tackle diverse scenarios involving rigid barriers and seismic characteristics.

The impact of this research is evidenced by substantial citation counts, with the core paper accumulating 128 citations and follow-up works receiving 118 and 109 citations respectively. Furthermore, analysis of 1,629 citing papers reveals that 81.5% originate from independent researchers, indicating that this methodological approach has been widely adopted and validated by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 244 · **6 flagged influential by Semantic Scholar**

CORE PAPER

A new approach to DEM simulation of sand production

2016 · 128 citations (GS)

Field-normalised: 103 Semantic Scholar citations place it in the top 5% of Engineering papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A review of water rock interaction in underground coal mining: Problems and analysis	—	—	—
2	DEM verification of the damping effect in a freely falling particle motion for quasi-and non-quasi-static conditions	Central and Southern China Municipal Engineering Design & Research Institute Co., Ltd., Changjiang Water Resources Commission	China	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Transmission effect of eroded particles in suffusion using the CFD-DEM coupling method	Shenzhen University	China	—
4	A semi-resolved CFD-DEM model for seepage-induced fine particle migration in gap-graded soils	Dalian University of Technology	China	—
5	Elastic visco-plastic model for binary sand-clay mixtures with applications to one-dimensional finite strain consolidation analysis	Hong Kong University of Science and Technology, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology	China, Hong Kong	—
6	Dynamic characteristics of the surrounding soil during the vibrational pulling process of a pile based on DEM	Changjiang Water Resources Commission, Wuhan University of Technology	China	—
7	Developments and applications of the CFD-DEM method in particle–fluid numerical simulation in petroleum engineering: A review	Queensland University of Technology, University of California, Irvine Medical Center	United States	—
8	Clogging effect of fines in seepage erosion by using CFD–DEM	China University of Petroleum (Beijing), Hong Kong Polytechnic University, Saudi Heart Association	China, Hong Kong, Saudi Arabia	—
9	Coupled CFD-DEM simulation and experimental study of particle distribution and accumulation during tailings seepage process	China Coal Technology and Engineering Group Corp (China), Nanchang Institute of Science & Technology, Xi'an University of Science and Technology	China, P. R. China	—
10	A resolved CFD-DEM investigation into sand production under water flooding in unconsolidated reservoir	Tongji University	China	—
11	Discrete element simulation of ground collapse induced by buried sewage pipeline breakage and soil leakage	Hohai University	China	—
12	State of the Art of CFD-DEM coupled modeling and its application in turbulent Flow-Induced soil erosion	State Key Laboratory of Continental Dynamics, Tarleton State University	China, United States	—
13	A numerical approach for CFD-DEM coupling method with pore network model considering the effect of anisotropic permeability in soil-rock mixtures	Chongqing University, Politecnico di Milano, Xi'an University of Architecture and Technology	China, Italy	—
14	Microscopic mechanism and analytical modeling of seepage-induced erosion in bimodal soils	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Zhejiang University	China	—
15	DEM analysis on diffuse failure of soil slope triggered by earthquakes	Tongji University	China	—
16	An investigation of the effect of drawdown pressure on sand production in an Iranian oilfield using a hybrid numerical modeling approach	Islamic Azad University	Iran	—

No.	Citing paper	Citing institution(s)	Country	S2
17	Dynamic process analysis of the Baige landslide by the combination of DEM and long-period seismic waves	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment	China	—
18	Smooth particle hydrodynamics and discrete element method coupling scheme for the simulation of debris flows	Pontificia Universidad Javeriana, University of Liverpool, Westlake University	China, Colombia, United Kingdom	—
19	Discrete Element Modelling of Railway Ballast Problems: an Overview: P Aela et al.	Beijing Jiaotong University, The Hong Kong Polytechnic University, University of Southampton	China, United Kingdom	—
20	A review on submarine geological risks and secondary disaster issues during natural gas hydrate depressurization production	Shandong University of Science and Technology	China	—
21	Microscopic mechanical analysis of sand production using a new arbitrary resolved-unresolved CFD-DEM model	Dalian University of Technology, Hebei University	China	—
22	Modeling dam deformation in the early stage of internal seepage erosion–Application to the Teton Dam, Idaho, before the 1976 incident	École Nationale des Travaux Publics de l'État, North China University of Water Resources and Electric Power, University of California, Irvine Medical Center	China, France, United States	—
23	Numerical simulation of particle migration from crushed sandstones during groundwater inrush	China University of Mining and Technology	China	—
24	Numerical simulation on borehole breakout and borehole size effect using discrete element method	UNSW Sydney, Western Sydney University	Australia	—
25	On the efficiency of slit-check dams in retaining granular flows	Politecnico di Torino	Italy	—
26	Quantitative microstructural characterization and seepage visualization of biocemented sand	Shanghai Ocean University, Tongji University	China	—
27	Dynamic coupling responses and sand production behavior of gas hydrate-bearing sediments during depressurization: An experimental study	China National Offshore Oil Corporation, China University of Geosciences, Guangzhou Marine Geological Survey	China	—
28	A coupled discrete element model for the simulation of soil and water flow through an orifice	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Ningbo University, University of Alberta	Canada, China	—
29	Sand Production Prediction with Machine Learning using Input Variables from Geological and Operational Conditions in the Karazhanbas Oilfield, Kazakhstan	Atyrau University of Oil and Gas, Fulbright University Vietnam, Nazarbayev University	Kazakhstan, Vietnam	—
30	Review on numerical simulation of the internal soil erosion mechanisms using the discrete element method	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Zhejiang University	China	—

Showing the 30 most-cited of 87 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Landslide reconstruction using seismic signal characteristics and numerical simulations: Case study of the 2017 "6.24" Xinmo landslide

2020 · 109 citations (GS)

Field-normalised: 91 Semantic Scholar citations place it in the top 5% of Geology papers from 2020 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A qualitative study of the critical conditions for the initiation of mine waste debris flows	China Geological Survey	China	—
2	DEM analysis on diffuse failure of soil slope triggered by earthquakes	Tongji University	China	—
3	Dynamic process analysis of the Baige landslide by the combination of DEM and long-period seismic waves	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment	China	—
4	A numerical characterization workflow for assessing the strength and failure modes of heterogeneous oil sands	University of Alberta	Canada	—
5	Numerical modeling of the Xinmo landslide from progressive movement to sudden failure	—	—	—
6	Step-like displacement prediction and failure mechanism analysis of slow-moving reservoir landslide	Chongqing Institute of Geology and Mineral Resources, Chongqing University, University of Lausanne	China, Switzerland	—
7	Landslide susceptibility mapping with deep learning algorithms	Chinese Academy of Sciences, Curtin University, Dhaka University of Engineering & Technology	Australia, Bangladesh, China	—
8	Hysteresis effect and seasonal step-like creep deformation of the Jiuxianping landslide in the Three Gorges Reservoir region	Chongqing Institute of Geology and Mineral Resources, Chongqing University	China	—
9	Integrating distributed acoustic sensing and computer vision for real-time seismic location of landslides and rockfalls along linear infrastructure	China Geological Survey, Nanjing University	China	—
10	Study on energy distribution and attenuation of CO2 fracturing vibration from coal-like material in a new test platform	Hokkaido University, University of California, Irvine Medical Center, Xi'an University of Science and Technology	Japan, P. R. China, United States	—
11	Large-scale landslide dam breach experiments: Overtopping and "overtopping and seepage" failures	Chinese Academy of Sciences, GFZ Helmholtz Centre for Geosciences, Institute of Mountain Hazards and Environment	China, Germany	—
12	Bibliometric analysis of landslide research based on the WOS database	China University of Geosciences	China	—

No.	Citing paper	Citing institution(s)	Country	S2
13	Seismic cumulative failure effects on a reservoir bank slope with a complex geological structure considering plastic deformation characteristics using shaking table ...	China Academy of Railway Sciences, Tsinghua University	China	—
14	Dynamic process simulation of the Xiaogangjian rockslide occurred in shattered mountain based on 3DEC and DFN	Chongqing University, Southwest Jiaotong University	China	—
15	Snowmelt-triggered reactivation of a loess landslide in Yili, Xinjiang, China: mode and mechanism	Chengdu University of Information Technology, Chinese Academy of Sciences, Institute of Mountain Hazards and Environment	China	—
16	Deep Learning for Potential Landslide Identification: Data, Models, Applications, Challenges, and Opportunities	China University of Geosciences, China University of Geosciences (Beijing)	China	—
17	A homogenization-based state-dependent model for gap-graded granular materials with fine-dominated structure	Hohai University, Hong Kong University of Science and Technology, The Hong Kong University of Science and Technology	China, Hong Kong	—
18	Low-cost miniaturized GNSS antenna for landslide monitoring and application in Baige landslide (western China)	Chang'an University	China	—
19	Directivity effect of the spatial distribution of coseismic landslides affected by near-fault ground motions	China University of Geosciences, Southwest Jiaotong University	China	—
20	Physics-informed data assimilation model for displacement prediction of hydrodynamic pressure-driven landslide	China University of Geosciences	China	—
21	Experimental study on the radial vibration characteristics of a coal briquette in each stage of its life cycle under the action of CO2 gas explosion	University of California, Irvine Medical Center, Xi'an University of Science and Technology	P. R. China, United States	—
22	Coordinated evolution and mechanism characteristics of the tunnel-landslide system under rainfall conditions	Guizhou University, Southwest University of Science and Technology	China	—
23	Back calculation and hazard prediction of a debris flow in Wenchuan meizoseismal area, China.	Chongqing University, Southwest Jiaotong University	China	—
24	A novel model for regional susceptibility mapping of rainfall-reservoir induced landslides in Jurassic slide-prone strata of western Hubei Province, Three Gorges ...	China University of Geosciences	China	—
25	Study on the stability of accumulated layer landslide under the coupling action of earthquake and rainfall	Lanzhou University of Technology	China	—
26	Field and numerical investigations of the highest natural dam in the Jinsha River catchment formed by the Wangdalong landslide	Chengdu University of Technology, China Geological Survey, Chongqing Jiaotong University	China, PR China	—

No.	Citing paper	Citing institution(s)	Country	S2
27	Characterizing large rockfalls using their seismic signature: A case study of Hongya rockfall	Charles University, Chengdu University of Technology, China Earthquake Administration	China, Czech Republic, PR China	—
28	Block-grain phase transition in rock avalanches: Insights from large-scale experiments	China Institute of Geological Environmental Monitoring, Southwest Jiaotong University	China	—
29	The multiple earthquakes induced progressive failure of the Xinmo landslide, China: based on shaking table tests	Chengdu University of Technology	PR China	—
30	Dynamic process analysis of the Xinmo landslide via seismic signal and numerical simulation	Shanghai Jiao Tong University, State Key Laboratory of Geohazard Prevention and Geoenvironment Protection	China	—

Showing the 30 most-cited of 77 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Effects of particle size of mono-disperse granular flows impacting a rigid barrier

2018 · 118 citations (GS)

Field-normalised: 103 Semantic Scholar citations place it in the top 5% of Engineering papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Numerical study of retention efficiency of a flexible barrier in mitigating granular flow comparing with large-scale physical modeling test data	Southern University of Science and Technology, The Hong Kong Polytechnic University	China	—
2	A cross-river tunnel excavation considering the water pressure effect based on DEM	Changjiang Water Resources Commission, Southeast University, Wuhan University of Technology	China	—
3	Experimental study on the regulation function of slit dam against debris flows	Chinese Academy of Sciences	China	—
4	Experimental study on impact and deposition behaviours of multiple surges of channelized debris flow on a flexible barrier	Southern University of Science and Technology, The Hong Kong Polytechnic University	China	—
5	Elastic visco-plastic model for binary sand-clay mixtures with applications to one-dimensional finite strain consolidation analysis	Hong Kong University of Science and Technology, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology	China, Hong Kong	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Dynamic characteristics of the surrounding soil during the vibrational pulling process of a pile based on DEM	Changjiang Water Resources Commission, Wuhan University of Technology	China	Influential
7	Smooth particle hydrodynamics and discrete element method coupling scheme for the simulation of debris flows	Pontificia Universidad Javeriana, University of Liverpool, Westlake University	China, Colombia, United Kingdom	—
8	DEM and theoretical analyses of the face stability of shallow shield cross-river tunnels in silty fine sand	Ministry of Water Resources of the People's Republic of China	China	—
9	Discrete element analysis of the rheological characteristics of self-compacting concrete with irregularly shaped aggregate	Wuhan University of Technology	China	—
10	Challenges and perspectives in designing engineering structures against debris-flow disaster	Tongji University	China	—
11	Energy transfer mechanisms of mobility alteration in landslide-debris flows controlled by entrainment and runout-path terrain: A case study	China University of Geosciences	China	—
12	Numerical Simulation of Debris Flow Impact on Pier With Different Cross-Sectional Shapes Based on Coupled CFD-DEM	Chongqing University, Yonsei University	China, South Korea	—
13	Modelling of debris flow-boulder-barrier interactions using the Coupled Eulerian Lagrangian method	University of Tasmania	Australia	—
14	Review on key issues in centrifuge modeling of flow-structure interaction	Tongji University	China	—
15	Influence of particle-size segregation on the impact of dry granular flow	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment, Sichuan Research Center of New Materials	China	—
16	Influence of solid–fluid interaction on impact dynamics against rigid barrier: CFD–DEM modelling	The Hong Kong University of Science and Technology, Zhejiang University	China	Influential
17	Computational assessment of baffle performance against rapid granular flows	Tongji University	China	—
18	Discrete element analysis of dry granular flow impact on slit dams	Chinese Academy of Sciences, State Key Laboratory of Hydraulics and Mountain River Engineering, The Hong Kong University of Science and Technology	China	—
19	Impact force of granular flows on walls normal to the bottom: slow versus fast impact dynamics	Communauté Université Grenoble Alpes	France	—

No.	Citing paper	Citing institution(s)	Country	S2
20	Filling capacity analysis of self-compacting concrete in rock-filled concrete based on DEM	Changjiang Water Resources Commission, Wuhan University of Technology	China	—
21	Impact of flow-like landslide on protection barrier: Centrifuge Tests and MPM modelling	Istituto Sperimentale Italiano Lazzaro Spallanzani, University of Salerno	Italy	—
22	Laboratory study on the influencing factors and their control for the coefficient of restitution during rockfall impacts	China University of Mining and Technology, Henan Polytechnic University, Hohai University	China	—
23	Effect of rockfall shape on the coefficient of restitution: insights from laboratory rockfall multi-parameter experiments	Jilin University	China	—
24	Real-scale experiment of debris flow in a natural gulley: Key findings and lessons learned	Gangneung-Wonju National University, National Institute of Forestry Science, Shinhwa Construction	South Korea	—
25	Investigations of granular material behaviors using coupled Eulerian-Lagrangian technique: From granular collapse to fluid-structure interaction	National Cheng Kung University, National Taiwan University	Taiwan	—
26	Model tests of the failure behaviors of buildings under the impact of granular flow	China Institute of Geo-Environment Monitoring, China University of Geosciences, University of Lausanne	China, Switzerland	—
27	Experimental validation of a new semi-empirical impact force model of the dry granular flow impact against a rigid barrier	Institute of Mountain Hazards and Environment	China	—
28	Influence of trapping efficiency on the pile-up geometry of granular flows behind slit dams	Chinese Academy of Sciences, Guizhou Minzu University, Tongji University	China	—
29	Dynamics of downslope granular flows and impacts on rigid barriers: Effect of particle segregation	Central South University, University of Technology Sydney	Australia, China	—
30	Granular material regime transitions during high energy impacts of dry flowing masses: MPM simulations with a multi-regime constitutive model	Autostrade per l'Italia, Fondazione Politecnico di Milano	Italia, Italy	—

Showing the 30 most-cited of 80 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher established a foundational framework for analyzing landslide-to-debris flow transformation, significantly advancing the understanding of topographic and entrainment effects in catastrophic geological events.

CLAIM: The researcher's significant contribution centers on elucidating the mechanisms of landslide-to-debris flow transformation, anchored by the seminal 2017 paper on the Wulipo landslide in Dujiangyan City. This core work serves as the foundation for a sustained line of inquiry into the kinematics and dynamics of such geological hazards.

ORIGINALITY: This line of work appears to address the complex interplay between topography and material entrainment during catastrophic slope failures. By progressing from the initial case study to subsequent numerical investigations and kinematic analyses in 2020 and 2022, the researcher systematically expanded the theoretical understanding of how terrain features influence landslide behavior and transformation processes.

SIGNIFICANCE: The impact of this research is evidenced by substantial citation metrics, with the core paper accumulating 86 citations and follow-up works garnering 93 and 102 citations respectively. Furthermore, the high degree of independent uptake, with 81.5% of citing papers originating from researchers outside the scholar's immediate network, underscores the broad relevance and acceptance of these findings within the global scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 162 · **2 flagged influential by Semantic Scholar**

CORE PAPER

The formation of the Wulipo landslide and the resulting debris flow in Dujiangyan City, China

2017 · 86 citations (GS)

Field-normalised: 68 Semantic Scholar citations place it in the top 10% of Environmental Science papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Uncertainty quantification of in situ horizontal stress with pressuremeter using a statistical inverse analysis method	University of Alberta	Canada	—
2	Controls on Landslide Size: Insights from Field Survey Data	Kingston and St George's University, Sheffield Emergency Care Forum, University of Bath	United Kingdom	—
3	Quantifying uncertainty of in situ horizontal stress and geotechnical parameters using a Bayesian inference approach for pressuremeter tests	University of Alberta	Canada	—
4	An elastoplastic model for gap-graded soils based on homogenization theory	Hong Kong University of Science and Technology, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology	China, Hong Kong	—
5	Grain configuration effect on pore water pressure in debris flow	Baoshan University, Institute of Mountain Hazards and Environment, Sichuan Highway Design and Research Institute	China	—
6	Improved plane layout of stabilizing piles based on the piecewise function expression of the irregular driving force	CCCC Highway Consultants (China), China University of Geosciences, Shenzhen Geotechnical Investigation & Surveying Institute Co., Ltd.	China	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Study of kinematic characteristics of a rock avalanche and subsequent erosion process due to a debris flow in Wenjia gully, Sichuan, China	Chengdu Surveying Geotechnical Research Institute, Gansu Province Bureau of Geology and Mineral Resources, Northwest Institute of Eco-Environment and Resources	Canada, China	—
8	Analysis of landslide deformation in eastern Qinghai Province, Northwest China, using SBAS-InSAR	Chongqing University of Posts and Telecommunications	China	—
9	Landslide deformation in the loess area of northwest China based on SBAS-InSAR technique: spatial distribution, factors and risk assessment	Chengdu University of Technology, Chongqing Normal University, Chongqing University of Posts and Telecommunications	China	—
10	Rapid characterization of landslide-debris flow chains of geologic hazards using multi-method investigation: Case study of the Tiejiangwan LDC	Southwest Jiaotong University	China	—
11	Development characteristics and causes of a fatal landslide occurred in Shuicheng, Guizhou province, China	China University of Geosciences, China University of Geosciences (Beijing), Chongqing Bureau of Geology and Minerals Exploration	China	—
12	Formation processes and mechanisms of a fault-controlled colluvial landslide in the Qinling-Daba Mountains, China	Chang'an University	China	—
13	Mechanism of the catastrophic June 2017 landslide at Xinmo village, Songping river, Sichuan province, China	Chengdu University of Technology, University of Chinese Academy of Sciences	China, PR China	—
14	Numerical simulation and parametric analysis of ultrasonic velocity test in fractured rock based on the discrete element method	Shijiazhuang Tiedao University	China	—
15	A novel comprehensive system for analyzing and evaluating storm surge disaster chains based on complex networks	Peking University Shenzhen Graduate School, Qilu Aerospace Information Research Institute, Shandong Management University	China	—
16	Hazard assessment of rainstorm-geohazard disaster chain based on multiple scenarios	China University of Geosciences	China	—
17	Influence of drainage and root biomass on soil mechanical behavior in triaxial tests	Institute of Mountain Hazards and Environment, Institute of Mountain Hazards and Environment, CAS	China	—
18	Mechanism analysis and partition characteristics of a recent highway landslide in Southwest China based on a 3D multi-point deformation monitoring system	CCCC Highway Consultants (China), China University of Geosciences, Wuhan Metro Group Co., Ltd.	China	—

No.	Citing paper	Citing institution(s)	Country	S2
19	Temporal and spatial pattern analysis and susceptibility assessment of geological hazards in Hunan Province of China from 2015 to 2022	Central South University, Geological Survey Institute of Hunan Province	China, People's Republic of China	—
20	Deformation, structure and potential hazard of a landslide based on InSAR in Banbar county, Xizang (Tibet)	State Key Laboratory of Resources and Environmental Information System	China	—
21	New understandings of the June 24th 2017 Xinmo landslide, Maoxian, Sichuan, china	Chengdu University of Technology, Chinese Academy of Sciences, Research Institute for Geo-Hydrological Protection	China, Italy, PR China	—
22	Assessment of prospective hazards resulting from the 2017 earthquake at the world heritage site Jiuzhaigou Valley, Sichuan, China	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Northwest University	China	—
23	Displacement characterization and spatial-temporal evolution of the 2020 Aniangzhai landslide in Danba county using time-series InSAR and multi-temporal …	UNSW Sydney	Australia	—
24	Effect of rainfall pattern and crack on the stability of a red bed slope: a case study in Yunnan province	China State Construction Engineering (China), Institute of Rock and Soil Mechanics	China	—
25	Dynamic response and failure evolution of low-angled interbedding soft and hard stratum rock slope under earthquake	Southwest Jiaotong University, Zhejiang Provincial Institute of Communications Planning, Design & Research Co., Ltd	China	—
26	Sanxicun landslide: an investigation of progressive failure of a gentle bedding slope	Chengdu University of Technology	PR China	—
27	Failure Analysis of a Highway Cut Slope with Anti-Slide Piles	China Highway Engineering Consulting Corporation, China University of Geosciences, Huaneng Lancang River Hydropower Inc.	China	—
28	Cut slope stability assessment along forest roads using the limit equilibrium approaches and slide software.	Sari Agricultural Sciences and Natural Resources University	Iran	—
29	Experimental and numerical study on the performance of novel RC frame structure encased with shaped steel under debris flow impact	Tongji University	China	—
30	Spatio-temporal evolution characteristics of typical debris flow sources after an earthquake	Southwest University of Science and Technology	China	—

Showing the 30 most-cited of 56 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Numerical investigation of the landslide-debris flow transformation process considering topographic and entrainment effects: a case study

2022 · 102 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Energy transfer mechanisms of mobility alteration in landslide-debris flows controlled by entrainment and runout-path terrain: A case study	China University of Geosciences	China	—
2	Modelling of debris flow-boulder-barrier interactions using the Coupled Eulerian Lagrangian method	University of Tasmania	Australia	—
3	Analysis of Debris Flow Protective Barriers Using the Coupled Eulerian Lagrangian Method	University of Tasmania	Australia	—
4	Elastoplastic modeling of sandy clays based on equivalent void ratio concept	Hohai University, Hong Kong Polytechnic University, Hong Kong University of Science and Technology	China, Hong Kong	—
5	Integrating machine learning ensembles for landslide susceptibility mapping in Northern Pakistan	China University of Geosciences, Chinese Academy of Sciences, Institute of Rock and Soil Mechanics	China, Saudi Arabia	—
6	Reactivation mechanism of old landslide triggered by coupling of fault creep and water infiltration: a case study from the east Tibetan Plateau	China University of Geosciences (Beijing), Chinese Academy of Geological Sciences	China	—
7	Process of a rock avalanche-debris flow in the southeast Tibetan Plateau	Chongqing Jiaotong University	China	—
8	An integral assessment of landslide dams generated by the occurrence of rainfall-induced landslide and debris flow hazard chain	Universidad de Medellín	Colombia	—
9	Formation mechanism and quantitative risk analysis of the landslide-induced hazard chain by an integrated approach for emergency management: A case study in the ...	China Institute of Geological Environmental Monitoring, Lanzhou University	China	—
10	Efficient risk assessment of landslide dam breach floods in the Yarlung Tsangpo river basin	China University of Geosciences, Tongji University, Zhejiang University	China	—
11	Spatiotemporal reconstruction and post-failure stability analysis of rainfall-induced landslides via multi-modal SAR-optical data fusion	Chengdu University of Technology, China University of Geosciences, Shenzhen Research Institute of China University of Geosciences	China, PR China	—
12	Numerical analysis of debris flows along the Sichuan-Tibet railway based on an improved 3D sphere DDA model and UAV-based photogrammetry	Central South University, China University of Geosciences	China	—
13	Characterization of the mass transport and energy conversion of a rapid long-runout	Xi'an Jiaotong University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
	loess landslide using the finite–discrete element method			
14	Sensitivity analysis on critical combinations of input parameters in DEM granular flow analysis	Tohoku University	Japan	—
15	Influence of path materials on rock avalanche dynamics in the Nayong case study	North China University of Water Resources and Electric Power	China	—
16	Two-phase two-layer SPH modeling of surge waves generated by debris flows	China Agricultural University	China	—
17	Hierarchical element integration technique in discrete element simulation of rock failure	Hong Kong University of Science and Technology, Tongji University, Wuhan University	China, Hong Kong	—
18	Modeling Shallow Landslide Runout Distance in Eocene Flysch Facies Using Empirical–Statistical Models (Western Black Sea Region of Türkiye)	Eskisehir Technical University, Hacettepe University	Turkey	—
19	Integration of Morris and GLUE methods for improving massflow-based debris flow simulation	Chinese Academy of Sciences, Zhengzhou University	China	—
20	Numerical investigation of debris flows using a two-phase continuum model incorporating a visco-inertial rheology	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment	China	—
21	Mechanisms of rockslide-debris avalanches and the associated air blast—insights from the Su village rockslide-debris avalanche in Zhejiang, China: mechanisms of …	Shanghai Jiao Tong University	China	—
22	Effects of clay and sand contents on phase transition and rheological shift behaviors in debris flows	Zhejiang University	China	—
23	Scaling laws of granular column collapse over varying base roughness: Insights from continuum modeling with Navier slip boundary condition	City University of Hong Kong, Sun Yat-sen University, Tsinghua University	Brazil, China	—
24	Investigation of deposition characteristics using a novel super-resolution method: a case study of Baiyan rock avalanche in Guizhou, China	China Academy of Railway Sciences Co. Ltd., Shanghai Jiao Tong University	China	—
25	Overtopping volume of impulse waves in glacier lakes: Experimental and numerical investigation using rigid dams	Chinese Academy of Sciences, Institute of Mountain Hazards and Environment, Southwest Jiaotong University	China	—
26	Variation in debris-flow-prone areas with ecosystem stability: a case study of the qipan catchment in the wenchuan earthquake region	China Three Gorges University	China	—
27	Landslide susceptibility mapping using advanced ensemble learning techniques integrating a reduced error pruning tree	Southwest Jiaotong University, Xinjiang University	China	—
28	Contributing factors in initiation of debris flow in Malaysia	University of Technology Malaysia	Malaysia	—

No.	Citing paper	Citing institution(s)	Country	S2
29	Energy-driven micro-macro modeling of earthquake-induced landslides via peridynamics-discrete element method framework	Central South University, Hefei University of Technology, Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)	China	—
30	Sediment entrainment and deposition	Centre de Recherche sur l'Environnement Alpin, Shizuoka University, University of Northern British Columbia	Canada, Japan, Switzerland	—

Showing the 30 most-cited of 51 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

The effect of topography on landslide kinematics: a case study of the Jichang town landslide in Guizhou, China

2020 · 93 citations (GS)

Field-normalised: 80 Semantic Scholar citations place it in the top 10% of Environmental Science papers from 2020 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	General Department of Natural Resources and Watershed Management, Mazandaran, Sari, Iran	—	—	—
2	Métodos avançados para avaliação da natureza reológica de suspensões concentradas aplicados ao escoamento pós-colapso de barragens de rejeito.	—	—	—
3	Energy transfer mechanisms of mobility alteration in landslide-debris flows controlled by entrainment and runout-path terrain: A case study	China University of Geosciences	China	—
4	Analysis on the coverage area of flow-like landslides under random strength parameters using an ANN-based stochastic analysis approach	Hohai University	China	—
5	Formation mechanism and quantitative risk analysis of the landslide-induced hazard chain by an integrated approach for emergency management: A case study in the …	China Institute of Geological Environmental Monitoring, Lanzhou University	China	—
6	Characterization of the mass transport and energy conversion of a rapid long-runout loess landslide using the finite–discrete element method	Xi'an Jiaotong University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Investigation of deposition characteristics using a novel super-resolution method: a case study of Baiyan rock avalanche in Guizhou, China	China Academy of Railway Sciences Co. Ltd., Shanghai Jiao Tong University	China	—
8	Projected increase in soil erosion risk in the karst landscape of the Pearl River Basin under high carbon emission scenarios	Guangdong University of Technology, Guizhou Minzu University, Nanjing University of Information Science and Technology	China	—
9	Evaluating landslide susceptibility: the impact of resolution and hybrid integration approaches	National Technical University of Athens, Xi'an University of Science and Technology	China, Greece	—
10	Deformation slope extraction and influencing factor analysis using LT-1 satellite data: A case study of Chongqing and surrounding Areas, China	Central South University, China Centre for Resources Satellite Data and Application, National Institute of Hospital Administration	China	—
11	On the applicability of satellite SAR interferometry to landslide hazards detection in hilly areas: a case study of Shuicheng, Guizhou in Southwest China	Wuhan University	China	—
12	Management of landslides in a rural–urban transition zone using machine learning algorithms—A case study of a National Highway (NH-44), India, in the ...	B.S. Abdur Rahman Crescent Institute of Science & Technology, Gyan Vihar University, Institute for Global Environmental Strategies	India, Japan	—
13	Slope failure mechanism of the "5· 1" Meida Highway collapse in Guangdong, China: interaction between multi-source water and weathered granite soil	Yangtze University	China	—
14	High-speed long-runout landslide scraping and entrainment effects: A case study on Shuicheng landslide	University of Newcastle, Wuhan University	Australia, China	—
15	Rapid characterization of landslide-debris flow chains of geologic hazards using multi-method investigation: Case study of the Tiejiangwan LDC	Southwest Jiaotong University	China	—
16	Post-failure process and kinematic behavior of two landslides: case study and material point analyses	Hanoi University of Civil Engineering, National Science and Technology Center for Disaster Reduction, National Taiwan University	Taiwan, Vietnam	—
17	Evaluating Shallow Landslide Prediction Mapping by Using Two Different GIS-Based Models: 4SLIDE and SHALSTAB	Università degli Studi della Tuscia	Italy	—
18	Multiscale analysis of surface roughness for the improvement of natural hazard modelling	WSL Institute for Snow and Avalanche Research SLF	Switzerland	—

No.	Citing paper	Citing institution(s)	Country	S2
19	Uncertainty evaluation of the run-out distance of flow-like landslides considering the anisotropic scale of fluctuation in the random field of internal friction angle	Hohai University, Jiangsu Design of Century Architecture Co., Ltd	China	—
20	Geotechnical and geological investigation of landslide in West Arsi Zone, Ethiopia	Jimma University	Ethiopia	—
21	Accurate prediction of earthquake-induced landslides based on deep learning considering landslide source area	Chengdu University of Technology, Delft University of Technology, Institute of Geographic Sciences and Natural Resources Research	Brazil, Canada, China	—
22	The effects of Phyllostachys edulis root systems on soil: insights from mechanical and hydrological testing	Fuzhou University	China	**Influential**
23	Impact of terrain variation on landslide mobility: Insights from DEM simulations	Tongji University	China	—
24	Topographic controls on kinematic characteristics of the 2015 Shanyang catastrophic landslide: insights from field investigations and Tsunami Squares modeling	Chang'an University, University of California, Santa Cruz	China, United States	—
25	GIS-driven multi-phase simulation framework for assessing rainfall-triggered landslides using SPH-FDM techniques	Indian Institute of Technology Delhi	India	—
26	Building risk amplification effect under loess landslides-hydraulic erosion-debris flow cascade in China	Beijing Normal University, Qinghai Normal University	China	—
27	Characterization of elastoplastic behavior and retrieval of active zone depth for expansive soil slopes in the middle-route channel head of the South-to-North Water …	Central South University	China	—
28	A quantitative approach for debris flow inception and propagation analysis in the lead up to risk management	University of Reggio Calabria, University of Salerno	Italy	—
29	Dynamic Analysis of the High-Speed and Long-Runout Landslide Movement Process Based on the Discrete Element Method: A Case Study of the Shuicheng …	Beijing University of Posts and Telecommunications, Nanjing University	China	—
30	Tectonic fracturing and clay enrichment in basalt slip zones: A key factor of 2019 Shuicheng landslide in southwest China	Chinese Academy of Geological Sciences, Istituto Nazionale di Geofisica e Vulcanologia, National Institute of Hospital Administration	China, Italy	—

Showing the 30 most-cited of 55 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Chinese Academy of Sciences	China	SCImago #2	132
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	117
Northwest University	China	THE 1001–1200 · QS 1001-1200	75
Institute of Mountain Hazards and Environment	China	—	73
Hong Kong University of Science and Technology	Hong Kong	SCImago #483 · THE =58 · QS 44	72
Southwest Jiaotong University	China	SCImago #509 · THE 801–1000	71
China University of Geosciences	China	SCImago #402 · QS 851-900	64
Chang'an University	China	SCImago #1440 · THE 1001–1200	61
Chengdu University of Technology	PR China	SCImago #2426	60
Tongji University	China	SCImago #82 · THE =141 · QS =177	56
Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	SCImago #4580	43
Sichuan University	China	SCImago #32 · THE 201–250 · QS =324	41
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	38
State Key Laboratory of Hydraulics and Mountain River Engineering	China	—	37
Wuhan University	China	SCImago #80 · THE =122 · QS 186	36

Geographic distribution of citing authors

Country	Citing papers
China	1,212
Hong Kong	106
United States	95
United Kingdom	63
PR China	53
Italy	47
Australia	37
India	36
Netherlands	35
Canada	34
Japan	33
Germany	31

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Experimental study on the moving characteristics of fine grains in wide grading unconsolidated soil under heavy rainfall	263	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	A new approach to DEM simulation of sand production	244	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	The formation of the Wulipo landslide and the resulting debris flow in Dujiangyan City, China	162	8 CFR 204.5(h)(3)(v) — Criterion 5