

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

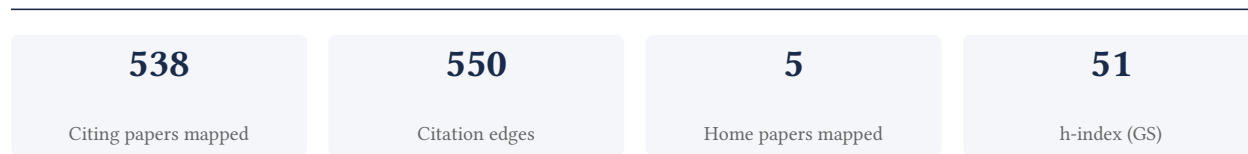
Jose J. Ramasco

IFISC (CSIC-UIB)

[Google Scholar profile](#)

Generated 2026-06-07 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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



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.

91.2% independent of 533 classified citing papers

| Citation type | Count |
|------------------|-------|
| Independent | 486 |
| Self-citation | 7 |
| Co-author | 40 |
| Same-institution | 0 |

5 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 developed foundational methods for identifying statistically significant communities in networks, establishing a rigorous framework that has been widely adopted and extended in subsequent network science research.

CLAIM: The researcher's core contribution is the development of a method for finding statistically significant communities in networks, as detailed in the 2011 paper published in PLoS ONE. This work serves as the foundation for a broader line of inquiry into network structure and human mobility patterns.

ORIGINALITY: The titles suggest a progression from establishing statistical rigor in community detection to applying these network principles to complex systems like human mobility. The 2011 paper appears to address the need for statistical significance in community identification, while the 2018 Physics Reports review indicates an expansion of these network models to broader applications, suggesting a novel integration of statistical methods with mobility modeling.

SIGNIFICANCE: The core paper has accumulated 1,287 citations, and the follow-up review has garnered 1,437 citations, indicating substantial uptake by the scientific community. Notably, 91.2% of the classified citations originate from independent researchers, demonstrating that this work has significantly influenced the field beyond the researcher's immediate circle and established a lasting impact on network analysis methodologies.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 208 · 23 flagged influential by Semantic Scholar

CORE PAPER

[Finding statistically significant communities in networks](#)

2011 · PloS one 6 (4), e18961, 2011 · 1,287 citations (GS)

Field-normalised: 1,000 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2011 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|-------------------------------|-------------|
| 1 | Community detection in networks: A user guide | Aalto University | Finland | Methodology |
| 2 | Modular brain networks | Indiana University Bloomington | United States | Methodology |
| 3 | Community detection in networks with node attributes | Stanford University, University of California, Irvine Medical Center | United States | — |
| 4 | Epigenetic plasticity cooperates with cell-cell interactions to direct pancreatic tumorigenesis | Institut du cancer Rosalind & Morris Goodman, Memorial Sloan Kettering Cancer Center | Canada, United States | — |
| 5 | Community detection in networks: A multi-disciplinary review | Al Yamamah University, National University of Sciences and Technology, Qatar University | Pakistan, Qatar, Saudi Arabia | — |
| 6 | Mapping the human brain's cortical-subcortical functional network organization | Rutgers, The State University of New Jersey, University of Ljubljana, Yale University | Slovenia, United States | — |
| 7 | Overlapping community detection in networks: The state-of-the-art and comparative study | Rensselaer Polytechnic Institute | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|----------------------------|-------------|
| 8 | A male mouse model for metabolic dysfunction-associated steatotic liver disease and hepatocellular carcinoma | Korea Advanced Institute of Science and Technology | South Korea | — |
| 9 | Ensemble Detection and Analysis of Communities in Complex Networks | Dartmouth College, George Mason University, Indraprastha Institute of Information Technology Delhi | India, United States | Influential |
| 10 | Testing-Based Community Detection Methods for Complex Networks | Al Yamamah University, Information Technology University, National University of Sciences and Technology | Pakistan, Saudi Arabia | Influential |
| 11 | Bloom: A stochastic growth-based fast method of community detection in networks | Kansas State University | United States | — |
| 12 | A local Random Walk method for identifying communities in social networks | Islamic Azad University Sanandaj Branch, University of Kurdistan | Iran | — |
| 13 | A novel method for overlapping community detection using Multi-objective optimization | University of Tehran | Iran | — |
| 14 | Significance and popularity in music production | Complexity Science Hub, Institute for Scientific Interchange, Sapienza University of Rome | Austria, Italy | — |
| 15 | Identification of gene co-expression clusters in liver tissues from multiple porcine populations with high and low backfat androstenone phenotype | Erciyes University, Fraunhofer-Gesellschaft, Fraunhofer Institute for Algorithms and Scientific Computing | Germany, Indonesia, Turkey | — |
| 16 | Modularity-based Sparse Soft Graph Clustering | École Normale Supérieure, Geometric (India), Télécom Paris | France, India | Influential |
| 17 | Friend Grouping Algorithms for Online Social Networks: Preference, Bias, and Implications | University of Illinois Urbana-Champaign | United States | — |
| 18 | Formation and persistence of research communities in Middle Income Countries: The case of South Africa | — | — | — |
| 19 | An Improved Parallel Hybrid Seed Expansion (PHSE) Method for Detecting Highly Overlapping Communities in Social Networks | China University of Mining and Technology | China | — |
| 20 | Cascade-based community detection | Institute for High Performance Computing and Networking, Yahoo (Spain) | Italy, Spain | — |
| 21 | A Fast Method of Detecting Overlapping Community in Network Based on LFM | Chongqing University | China | — |
| 22 | Efficient unveiling of multi-members in a social network | Université Claude Bernard Lyon 1 | France | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|--------------------|--------------------|
| 23 | ECoHeN: A Hypothesis Testing Framework for Extracting Communities from Heterogeneous Networks | University of San Francisco | — | — |
| 24 | Structure and organization of the mental lexicon: A network approach derived from syntactic dependency relations and word associations | KU Leuven, University of Adelaide | Australia, Belgium | — |
| 25 | An upper approximation based community detection algorithm for complex networks | Indian Institute of Management Lucknow | India | — |
| 26 | Overlapping community detection based on conductance optimization in large-scale networks | Harbin Institute of Technology | China | — |
| 27 | Overlapping community detection in dynamic networks. (Détection de communautés recouvrantes dans des réseaux de terrain dynamiques) | — | — | Influential |
| 28 | Searching Open-Source Vulnerability Function Based on Software Modularization | — | — | — |
| 29 | Large-scale network analysis captures biological features of bacterial plasmids | Institute of Structural and Molecular Biology, University College London | United Kingdom | — |
| 30 | Closed benchmarks for network community structure characterization | Consejo Superior de Investigaciones Científicas | Spain | — |

Showing the 30 most-cited of 105 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).

Citing-text excerpts — how the field used this work

METHODOLOGY Community detection in networks: A user guide

“The code for OSLOM is downloadable from the dedicated website <http://www.oslom.org>.”

METHODOLOGY Modular brain networks

“One such method is OSLOM (Order Statistics Local Optimization Method) (Lancichinetti et al. 2011), which scores communities based on how likely it is to find a community with similar properties in a random network with no community structure (Lancichinetti et al. 2010).”

FOLLOW-UP WORK

Human mobility: models and applications

2018 · Physics Reports 734, 1-74, 2018 · 1,437 citations (GS)

Field-normalised: 988 Semantic Scholar citations place it in the top 1% of Geography papers from 2018 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|---|--------------------------------|--------------------|
| 1 | Population flow drives spatio-temporal distribution of COVID-19 in China | The University of Hong Kong | China | — |
| 2 | Future directions in human mobility science | IT University of Copenhagen, Technical University of Denmark, University of Leeds | Denmark, Italy, United Kingdom | Influential |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|--|-------------------------------------|-------------|
| 3 | Deep learning for cross-domain data fusion in urban computing: Taxonomy, advances, and outlook | Carnegie Mellon University, JD Technology, Southwest Jiaotong University | China, Hong Kong, United States | Background |
| 4 | The universal visitation law of human mobility | Institute of Informatics and Telematics, Massachusetts Institute of Technology | Italy, United States | — |
| 5 | The scales of human mobility | University of Copenhagen; Technical University of Denmark | Denmark | — |
| 6 | COVID-19 lockdown induces disease-mitigating structural changes in mobility networks | Robert Koch Institute | Germany | Background |
| 7 | A deep gravity model for mobility flows generation | Amazon (Germany), Fondazione Bruno Kessler, University of Pisa | Germany, Italy | Methodology |
| 8 | Unravelling the spatial directionality of urban mobility | Peking University | China | Background |
| 9 | A survey on deep learning for human mobility | Amazon (Germany), Fondazione Bruno Kessler, National Research Council | Germany, Italy | Influential |
| 10 | Data-Driven Approach for Passenger Mobility Pattern Recognition Using Spatiotemporal Embedding | Beijing Jiaotong University, Xi'an Railway Survey and Design Institute | China | — |
| 11 | Decision Behavior Based Private Vehicle Trajectory Generation Towards Smart Cities | Dalian University of Technology, Federation University, Zhejiang University of Technology | Australia, China | — |
| 12 | City structure shapes directional resettlement flows in Australia | The University of Sydney | Australia | — |
| 13 | Impact of data processing on deriving micro-mobility patterns from vehicle availability data | ETH Zurich, Loughborough University, Lund University | Sweden, Switzerland, United Kingdom | — |
| 14 | Assessing public transport accessibility using GPS data | University of Tartu | Estonia | — |
| 15 | A gravity-inspired model integrating geospatial and socioeconomic distances for truck origin-destination flows prediction | Institute of Geographic Sciences and Natural Resources Research, Jiangsu Center for Collaborative Innovation in Geographical Information Resource Development and Application, University of Wisconsin–Madison | China, United States | — |
| 16 | A comprehensive methodological review of human mobility simulation and modelling: Current trends, challenges, and future directions | Modul University Vienna, The University of Tokyo, Tokyo Institute of Technology | Austria, China, Japan | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|--|-----------------------------|----|
| 17 | Mobility Data Science Perspectives and Challenges | Aalborg University, American University in Cairo, Arizona State University | Australia, Austria, Belgium | — |
| 18 | Urban mobility and inequalities. Some perspectives from different disciplines | Universidad Pontificia Bolivariana, University of Leicester | Colombia, United Kingdom | — |
| 19 | Correcting socioeconomic bias in mobile phone mobility estimates using multilevel regression and poststratification | Pôle de Recherche pour l'Organisation et la Diffusion de l'Information Géographique, Universidad del Desarrollo | Chile, France | — |
| 20 | Revealing an Inherently Limiting Factor in Human Mobility Prediction | Institut national de recherche en sciences et technologies du numérique, Institut Polytechnique de Paris, Universidade Federal de Minas Gerais | Brazil, France | — |
| 21 | GTFormer: A Geospatial Temporal Transformer for Crowd Flow Prediction | Tokyo University of Science | Japan | — |
| 22 | Revealing the functional roles of global airports through passenger flow: A higher-order network perspective | Vaughn College of Aeronautics and Technology | United States | — |
| 23 | Human Mobility Prediction With Region-Based Flows and Water Consumption | Universidad Católica de Murcia, Universitat Politècnica de València | Spain | — |
| 24 | Unveiling large-scale commuting patterns based on mobile phone cellular network data | University of Tartu | Estonia | — |
| 25 | Evaluating geospatial context information for travel mode detection | Institute of Cartography and Geoinformation | Switzerland | — |
| 26 | Uncovering spatial and social gaps in rural mobility via mobile phone big data | Ministry of Education of the People's Republic of China, Peng Cheng Laboratory | China | — |
| 27 | From narratives to movement: A User-Generated Content-Driven Agent-Based Model of spatial vitality in historical and cultural districts | City University of Macau, Guangdong Urban & Rural Planning and Design Institute | China | — |
| 28 | Large Language Models are Zero-Shot Next Location Predictors | Fondazione Bruno Kessler, Fondazione Bruno Kessler, Free University of Bolzano | Italy | — |
| 29 | Optimal Location of EVs Public Charging Stations Based on a Macroscopic Urban Electromobility Model | Université Grenoble Alpes | France | — |
| 30 | Recurrent visitations expose the paradox of human mobility in the 15-Minute City vision | — | — | — |

Showing the 30 most-cited of 103 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).

Citing-text excerpts — how the field used this work

METHODOLOGY A deep gravity model for mobility flows generation

"...machine learning models because they are the natural extension of the state-of-the-art model for flow generation, i.e., the singly constrained gravity model 15,47, which corresponds to a multinomial logistic regression that is formally equivalent to a linear neural network with one softmax layer."

Contribution 2

Claim — Contribution 2

The researcher established a foundational framework for modeling infectious disease spread using multiscale mobility networks, fundamentally advancing spatial epidemiology.

CLAIM: The researcher's seminal contribution is the development of a multiscale mobility network model to analyze the spatial spreading of infectious diseases, as detailed in their 2009 paper published in the Proceedings of the National Academy of Sciences. This work stands as a core pillar of their research portfolio, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The title suggests a novel integration of mobility data at multiple scales to understand disease transmission dynamics. By focusing on 'multiscale mobility networks,' the work appears to address limitations in prior models that may have overlooked the complex, hierarchical nature of human movement in driving epidemic spread. This approach likely offered a more granular and realistic representation of how pathogens traverse geographic spaces compared to earlier, simpler spatial models.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of 1,786, indicating widespread recognition and utility within the scientific community. Furthermore, citation analysis reveals that 91.2% of citing papers originate from independent researchers, demonstrating that the framework has been adopted and built upon by a broad, diverse field of scholars rather than just the author's immediate circle. This high degree of independent uptake underscores the work's status as a standard reference in spatial epidemiology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 96 · 1 flagged influential by Semantic Scholar

CORE PAPER

[Multiscale mobility networks and the spatial spreading of infectious diseases](#)

2009 · Proceedings of the National Academy of Sciences 106 (51), 21484-21489, 2009 · 1,786 citations (GS)

Field-normalised: 1,362 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2009 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|-----------------------|----|
| 1 | Signal propagation in complex networks | Center for Excellence in Brain Science and Intelligence Technology, East China University of Science and Technology, Huawei Technologies | China, Germany, India | — |
| 2 | Artificial intelligence for science in quantum, atomistic, and continuum systems | — | — | — |
| 3 | Unique in the crowd: The privacy bounds of human mobility | Massachusetts Institute of Technology | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|--|----------------------------|----|
| 4 | A review of graph neural networks in epidemic modeling | Emory University, Georgia Institute of Technology, Wuhan University | China, United States | — |
| 5 | Population flow drives spatio-temporal distribution of COVID-19 in China | The University of Hong Kong | China | — |
| 6 | The parable of Google Flu: traps in big data analysis | Harvard University, Northeastern University | United States | — |
| 7 | Infectious disease dynamics in metapopulations with heterogeneous transmission and recurrent mobility | Instituto de Biocomputación y Física de Sistemas Complejos, Universidade Federal de Viçosa, Universitat Rovira i Virgili | Brazil, Spain | — |
| 8 | Exploring Large Digital Bodies for the Study of Human Behavior | Universidade de Pernambuco, Universidade Federal de Pernambuco, Universidade Federal do Sul e Sudeste do Pará | Brazil | — |
| 9 | A Global Commuting Origin-Destination Flow Dataset for Urban Sustainable Development | Tsinghua University | China | — |
| 10 | Spreading Dynamics Following Bursty Activity Patterns | Rutgers Cancer Institute | United States | — |
| 11 | Hidden urban patterns: Existential discovery of urban patterns based on traffic and virtual space | University of Guilan | Iran | — |
| 12 | Block-Fitness Modeling of the Global Air Mobility Network | Ca' Foscari University of Venice, Ca' Foscari University of Venice, Istituto Nazionale di Fisica Nucleare, Roma Tor Vergata | Italy, United States | — |
| 13 | Secure Violent Detection in Android Application with Trust Analysis in Google Play | IFMR Graduate School of Business | India | — |
| 14 | Mobile phone data highlights the role of mass gatherings in the spreading of cholera outbreaks | École Polytechnique Fédérale de Lausanne, Maladies Infectieuses et Vecteurs: Écologie, Génétique, Évolution et Contrôle, Politecnico di Milano | France, Italy, Senegal | — |
| 15 | Using Twitter Data to Estimate the Relationship between Short-term Mobility and Long-term Migration | Austrian Academy of Sciences, Chinese University of Hong Kong, Qatar Airways (Qatar) | Austria, China, Qatar | — |
| 16 | Is the Urban World Small? The Evidence for Small World Structure in Urban Networks | — | — | — |
| 17 | Delayed reaction towards emerging COVID-19 variants of concern: Does history repeat itself? | — | — | — |
| 18 | Genomic Epidemiology of Early SARS-CoV-2 Transmission Dynamics, Gujarat, India | Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement, Institut thématique Santé Publique, Royal Veterinary College | France, United Kingdom | — |
| 19 | Network-informed analysis of a multivariate trait-space reveals optimal trait selection | Ghent University, Institut National de Recherche pour | Australia, Belgium, France | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|-------------------------------------|----|
| | | l'Agriculture, l'Alimentation et l'Environnement, Max Planck Institute for Biogeochemistry | | |
| 20 | Transições de fases em um processo de reação-difusão em metapopulações heterogêneas | — | — | — |
| 21 | Unraveling spatial patterns of COVID-19 in Italy: Global forces and local economic drivers | University of Macerata | Italy | — |
| 22 | Community Structure in Social Networks: Applications for Epidemiological Modelling | University of Cambridge | United Kingdom | — |
| 23 | Interregional mobility in different age groups is associated with COVID-19 transmission in the Taipei metropolitan area, Taiwan | National Health Research Institutes, National Taiwan University, Taipei Medical University | Taiwan | — |
| 24 | Event-Based Air Transport Network Resiliency Management with Meta-Population Epidemic Model | Istanbul Technical University | Turkey | — |
| 25 | Generalized gravity model for human migration | Gyeongnam National University of Science and Technology, Max Planck Institute for Evolutionary Biology, Northwestern University | Germany, South Korea, United States | — |
| 26 | Critical behavior in interdependent spatial spreading processes with distinct characteristic time scales | Fondazione Bruno Kessler, University of Trento | Italy | — |
| 27 | Modelling railway delay propagation as diffusion-like spreading | European Molecular Biology Organization, Netherlands Environmental Assessment Agency, Nokia (France) | Belgium, France, Germany | — |
| 28 | Spread of chikungunya from the Caribbean to mainland Central and South America: a greater risk of spillover in Europe? | — | — | — |
| 29 | Improved Response to Disasters and Outbreaks by Tracking Population Movements with Mobile Phone Network Data: A Post-Earthquake Geospatial Study in Haiti | Columbia University, Karolinska Institutet | Sweden, United States | — |
| 30 | Optimizing Operational Strategies for Mass Transit Systems in Response to a Global Pandemic | Northwestern University | United States | — |

Showing the 30 most-cited of 96 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 |
|--|----------------|----------------------------------|---------------|
| Northeastern University | United States | QS 384 | 21 |
| Institute for Cross-Disciplinary Physics and Complex Systems | Spain | — | 13 |
| University of California, Irvine Medical Center | United States | — | 12 |
| University College London | United Kingdom | SCImago #30 | 10 |
| Institute for Scientific Interchange | Italy | — | 10 |
| University of Pisa | Italy | THE 351–400 · QS =343 | 10 |
| University of Oxford | United Kingdom | SCImago #26 · THE 1 · QS 4 | 9 |
| Fondazione Bruno Kessler | Italy | SCImago #1952 | 8 |
| Tsinghua University | China | SCImago #8 · THE 12 · QS =17 | 8 |
| Massachusetts Institute of Technology | United States | SCImago #41 · THE 2 · QS 1 | 7 |
| Institut Pierre Louis d'Épidémiologie et de Santé Publique | France | SCImago #3490 | 7 |
| Northwestern University | United States | THE 30 · QS =42 | 7 |
| Indiana University Bloomington | United States | SCImago #798 · QS =306 | 6 |
| Georgia Institute of Technology | United States | SCImago #270 · THE =41 · QS =123 | 6 |
| Fogarty International Center | United States | — | 6 |

Geographic distribution of citing authors

| Country | Citing papers |
|----------------|---------------|
| United States | 154 |
| China | 104 |
| United Kingdom | 56 |
| Italy | 54 |
| France | 41 |
| Germany | 31 |
| Spain | 25 |
| Canada | 18 |
| India | 15 |
| Australia | 15 |
| Brazil | 14 |
| Switzerland | 12 |

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 | Finding statistically significant communities in networks | 208 | Dhanasar – Prong 2 (well-positioned) |
| Contribution 2 | Multiscale mobility networks and the spatial spreading of infectious diseases | 96 | Dhanasar – Prong 2 (well-positioned) |