

# Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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[Google Scholar profile](#)

**Generated 2026-05-21 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

<b>8</b> Citing papers mapped	<b>8</b> Citation edges	<b>1</b> Home papers mapped	<b>28</b> h-index (GS)
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### 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.

**62.5% independent** of 8 classified citing papers

Citation type	Count
Independent	5
Self-citation	0
Co-author	3
Same-institution	0

0 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 advanced epidemic modeling by simulating disease spread within an empirical spatiotemporal network of over 50,000 sexual contacts, providing a high-resolution framework for understanding transmission dynamics.*

CLAIM: The researcher's significant contribution centers on the 2011 publication in PLoS Computational Biology, which simulated epidemics using an empirical spatiotemporal network of 50,185 sexual contacts. This work stands as a foundational piece in the field, establishing a detailed methodological approach for analyzing disease transmission through complex, real-world contact networks.

ORIGINALITY: This line of work appears to address the limitations of abstract or theoretical network models by integrating large-scale empirical data. The title suggests a novel application of computational biology to map sexual contact networks with high granularity, offering a more realistic representation of human interaction patterns than previously available models. By focusing on a specific, large dataset, the researcher provided a concrete basis for studying how spatial and temporal factors influence epidemic spread.

SIGNIFICANCE: The core paper has garnered 388 citations, indicating substantial uptake by the scientific community. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the work has influenced scholars outside the researcher's immediate institution and collaboration network. This broad, independent recognition underscores the paper's role as a seminal reference in computational epidemiology and network science.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

#### CORE PAPER

### [Simulated epidemics in an empirical spatiotemporal network of 50,185 sexual contacts](#)

2011 · PLoS Computational Biology · 388 citations (GS)

Field-normalised: 312 Semantic Scholar citations place it in the top 5% of Medicine papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Networks beyond pairwise interactions: Structure and dynamics</a> (2020)	CENTAI	Italy	—
2	<a href="#">Epidemic processes in complex networks</a> (2015)	Delft University of Technology, Istituto dei Sistemi Complessi, Northeastern University	Netherlands, Spain, United States	—
3	<a href="#">Signal propagation in complex networks</a> (2023)	Beijing University of Posts and Telecommunications, Central South University, Changsha University of Science & Technology	Austria, China, Germany	—
4	<a href="#">Statistical physics of vaccination</a> (2016)	Civil Aviation University of China, École Polytechnique Fédérale de Lausanne, Kyushu University	Canada, China, India	—
5	<a href="#">The fundamental advantages of temporal networks</a> (2017)	Brigham and Women's Hospital and Harvard Medical School, Northeastern University, Peking University	China, United States	—

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
University of Maribor	Slovenia	SCImago #3736 · THE 1201–1500 · QS 901-950	2
Northeastern University	United States	QS 384	2
University of Waterloo	Canada	SCImago #491 · THE =162 · QS =119	1
Aalto University	Finland	SCImago #854 · THE =195 · QS =114	1
University of Aberdeen	United Kingdom	SCImago #1812 · THE 201–250 · QS =262	1
Brigham and Women's Hospital and Harvard Medical School	United States	—	1
Universitat Politècnica de Catalunya	Spain	SCImago #624 · THE 601–800	1
École Polytechnique Fédérale de Lausanne	Switzerland	SCImago #393 · THE 35	1
Hokkaido University	Japan	SCImago #975 · THE 351–400 · QS =170	1
Tokyo Institute of Technology	Japan	QS 85	1
Sungkyunkwan University	South Korea	SCImago #527 · THE 87 · QS =126	1
Kyushu University	Japan	SCImago #873 · THE 301–350 · QS =170	1
RIKEN	Japan	—	1
Shanghai Artificial Intelligence Laboratory	China	SCImago #563	1
Chinese Academy of Sciences	China	SCImago #2	1

### Geographic distribution of citing authors

Country	Citing papers
Japan	3
China	3
Italy	2
Slovenia	2
United States	2
United Kingdom	2
India	2
Switzerland	1

Country	Citing papers
Netherlands	1
Canada	1
Germany	1
Austria	1

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.

## E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.

2015  2

## 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

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

<b>Contribution</b>	<b>Core paper</b>	<b>Indep. cites</b>	<b>Supports</b>
Contribution 1	Simulated epidemics in an empirical spatiotemporal network of 50,185 sexual contacts	5	Dhanasar — Prong 2 (well-positioned)