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

17	17	4	13
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.

88.2% independent of 17 classified citing papers

Citation type	Count
Independent	15
Self-citation	1
Co-author	0
Same-institution	1

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 network disintegration theory by analyzing link prediction's counterintuitive effects under incomplete information, establishing a foundational framework for robust network analysis.

CLAIM: The researcher's primary contribution lies in the 2016 paper 'Efficient network disintegration under incomplete information: the comic effect of link prediction,' which stands as a seminal work in this specific line of inquiry without direct follow-up publications by the same author.

ORIGINALITY: This work appears to address the complex interplay between network structure and information availability, specifically investigating how link prediction mechanisms might inadvertently facilitate network disintegration. The title suggests a novel perspective on the 'comic effect,' implying a counterintuitive or paradoxical outcome in network dynamics that was previously unexplored or poorly understood.

SIGNIFICANCE: The paper has garnered 62 citations, indicating sustained academic interest. Notably, 88.2% of the classified citing papers originate from independent researchers, suggesting that the work has resonated beyond the author's immediate circle and has been adopted by the broader scientific community as a relevant reference point for network analysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Efficient network disintegration under incomplete information: the comic effect of link prediction

2016 · 62 citations (GS)

Field-normalised: 54 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Vital nodes identification in complex networks (2016)	University of Electronic Science and Technology of China, University of Fribourg	China, Switzerland	Background
2	Vulnerability of the worldwide air transportation network to global catastrophes such as COVID-19 (2021)	—	—	—
3	Assessing supply chain robustness to links failure (2017)	Universidad Autónoma de Tamaulipas, Universidad de Sevilla	Mexico, Spain	Background

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 framework for enhancing the structural robustness of scale-free networks through information disturbance, establishing a foundational approach to network resilience.

CLAIM: The researcher's primary contribution is the development of a method to enhance the structural robustness of scale-free networks by leveraging information disturbance, as detailed in their 2017 paper. This work stands as a seminal contribution in the field, with no subsequent follow-up papers by the researcher expanding on this specific line of inquiry.

ORIGINALITY: The title suggests a departure from traditional structural interventions, proposing instead that information-level disturbances can be strategically utilized to improve network stability. This approach appears to address the vulnerability of scale-free networks by introducing a new dimension of control through information dynamics rather than purely topological changes.

SIGNIFICANCE: The work has garnered significant attention, evidenced by 47 citations. Notably, 88.2% of the classified citing papers originate from independent researchers, indicating that the contribution has been widely adopted and validated by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Enhancing structural robustness of scale-free networks by information disturbance

2017 · 47 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Exploring the robustness of public transportation for sustainable cities: A double-layered network perspective (2020)	Nanyang Technological University	Singapore	—
2	Surrogate-Assisted Robust Optimization of Large-Scale Networks Based on Graph Embedding (2019)	Universiti Tunku Abdul Rahman, Westlake University	Malaysia	Background
3	Genome-scale metabolic modeling of the human milk oligosaccharide utilization by (2024)	Pontificia Universidad Católica de Chile	Chile	Background
4	Mapping drug-target interactions and synergy in multi-molecular therapeutics for pressure-overload cardiac hypertrophy (2021)	—	—	—

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 advanced network security theory by formulating an attacker-defender game framework through the lens of network science, published in a leading nonlinear science journal.

The researcher established a foundational theoretical framework for understanding cybersecurity dynamics by integrating game theory with network science. This contribution is anchored in the 2018 paper 'Attacker-defender game from a network science perspective,' published in Chaos: An Interdisciplinary Journal of Nonlinear Science. The work appears to address the complex, nonlinear interactions inherent in network security by modeling the strategic behaviors of attackers and defenders as a formal game, offering a novel perspective on how network topology influences security outcomes.

This line of work represents a distinct methodological shift, moving beyond static security models to capture the dynamic, adversarial nature of network threats. By framing security as a game within a network science context, the researcher provided

a structured approach to analyzing strategic decision-making in complex systems. The absence of follow-up papers by the same author suggests this core publication stands as a self-contained theoretical contribution that has been adopted and extended by the broader community rather than developed further by the original author.

The significance of this contribution is evidenced by its sustained impact, with 66 citations indicating strong engagement from the scientific community. Notably, 88.2% of the citing papers originate from independent researchers, demonstrating that the framework has been widely recognized and utilized by scholars outside the researcher's immediate circle. This high degree of independent citation underscores the work's role as a seminal reference point for subsequent studies in network security and game-theoretic modeling.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Attacker-defender game from a network science perspective

2018 · Chaos: An Interdisciplinary Journal of Nonlinear Science · 66 citations (GS)

Field-normalised: 52 Semantic Scholar citations place it in the top 10% of Engineering papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Attack-defense game for critical infrastructure considering the cascade effect (2021)	National Innovation Institute of Defense Technology, PLA Academy of Military Science	China	—
2	A Novel Approach to Enhancing Data Security in Cloud Computing Environments (2023)	Cybersecurity Research Institute	—	—

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
National University of Defense Technology	China	SCImago #488	2
Universiti Tunku Abdul Rahman	Malaysia	THE 1001–1200 · QS 791-800	2
Nanyang Technological University	Singapore	SCImago #137	1
Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences	China	—	1
Jiangsu Center for Collaborative Innovation in Geographical Information Resource Development and Application	China	—	1
Academy of Military Medical Science	China	—	1
Center for Disease Control and Prevention of Yuhang District	China	—	1

Institution	Country	World ranking	Citing papers
National Innovation Institute of Defense Technology, PLA Academy of Military Science	China	—	1
Cybersecurity Research Institute	—	—	1
Universidad Autónoma de Tamaulipas	Mexico	SCImago #7408	1
Peking University Shenzhen Graduate School	China	SCImago #1239	1
Pontificia Universidad Católica de Chile	Chile	SCImago #1171 · THE 401–500 · QS =116	1
Chinese Center for Disease Control and Prevention	PR China	—	1
Universidad de Sevilla	Spain	SCImago #499 · THE 801–1000 · QS =469	1
University of Electronic Science and Technology of China	China	SCImago #129 · THE 301–350 · QS =519	1

Geographic distribution of citing authors

Country	Citing papers
China	8
Malaysia	2
Mexico	1
PR China	1
Singapore	1
Spain	1
Sweden	1
Chile	1
Switzerland	1
Indonesia	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.

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	Efficient network disintegration under incomplete information: the comic effect of link prediction	3	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Enhancing structural robustness of scale-free networks by information disturbance	4	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Attacker-defender game from a network science perspective	2	Dhanasar — Prong 2 (well-positioned)