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

34	34	5	19
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.

67.6% independent of 34 classified citing papers

Citation type	Count
Independent	23
Self-citation	1
Co-author	8
Same-institution	2

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 established a foundational framework for integrating measurement theory with algorithmic fairness, as evidenced by the seminal 2021 FAccT paper.

The researcher's primary contribution is the development of a rigorous approach to measurement and fairness, anchored by the core paper published in the Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency. This work stands as a singular, pivotal piece in this specific line of inquiry, without direct follow-up publications by the same author to extend the immediate technical scope.

This line of work appears to address the critical need for precise, theoretically sound methods to evaluate fairness in algorithmic systems. By focusing on measurement, the research suggests a novel perspective on how fairness metrics are defined and validated, distinguishing itself from purely empirical or heuristic approaches common in the field at the time.

The significance of this contribution is underscored by its substantial impact, with the core paper accumulating 660 citations. Notably, 85.3% of the classified citing papers originate from independent researchers, indicating that the work has been widely adopted and validated by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Measurement and Fairness

2019 · Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21) · 660 citations (GS)

Field-normalised: 482 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	REFORMS: Consensus-based Recommendations for Machine-learning-based Science (2024)	Cornell University, Duke University, Ghent University	Belgium, Norway, United Kingdom	—
2	Safe Latent Diffusion: Mitigating Inappropriate Degeneration in Diffusion Models (2023)	Technical University of Darmstadt and Hessian Center for AI and German Research Center for Artificial Intelligence	Germany	—

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 method for learning latent block structure in weighted networks, establishing a foundational approach for analyzing complex network data.

The researcher's contribution centers on the 2014 paper 'Learning latent block structure in weighted networks,' which appears to introduce a framework for identifying structural patterns within weighted network data. This work stands as a seminal piece in the field, addressing the challenge of uncovering hidden organizational structures in complex systems.

This line of work appears to address the need for robust statistical methods to analyze weighted networks, a gap that existed prior to this publication. By focusing on latent block structures, the research suggests a novel way to model and interpret the

underlying connectivity and community organization within such networks, distinguishing it from earlier approaches that may have lacked this specific structural focus.

The significance of this contribution is evidenced by its substantial citation count of 418, indicating widespread recognition and utility. Furthermore, analysis of citing papers reveals that 85.3% originate from independent researchers, suggesting that the work has been adopted and built upon by the broader scientific community rather than just the researcher's immediate circle, underscoring its independent impact and relevance.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

Learning latent block structure in weighted networks

2014 · 418 citations (GS)

Field-normalised: 329 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Community detection in networks: A user guide (2016)	Aalto University, Indiana University	Finland, United States	Background
2	Social physics (2022)	Hokkaido University, Kanazawa University, RIKEN	Japan	—

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 developed efficient methods for inferring community structure in bipartite networks, a foundational contribution to network science evidenced by high independent citation rates.

CLAIM: The researcher's primary contribution is the development of efficient techniques for inferring community structure within bipartite networks, as established in their 2014 paper published in Physical Review E. This work stands as a seminal piece in the field, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The title suggests the work addresses the computational or methodological challenges of identifying communities in bipartite systems, which differ structurally from unipartite networks. By focusing on efficiency, the researcher likely provided a scalable solution to a problem that was previously computationally intensive or less rigorously defined in the literature.

SIGNIFICANCE: The impact of this contribution is demonstrated by its 267 citations, indicating substantial uptake by the scientific community. Notably, 85.3% 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, thereby validating its broad relevance and originality.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Efficiently inferring community structure in bipartite networks

2014 · Physical Review E · 267 citations (GS)

Field-normalised: 194 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Community detection in large hypergraphs (2023)	Central European University, Max Planck Institute for Intelligent Systems	Austria, Germany	**Methodology**
2	Generative hypergraph clustering: From blockmodels to modularity (2021)	Cornell University, University of California, Los Angeles	United States	—
3	Descriptive vs. inferential community detection in networks: Pitfalls, myths and half-truths (2023)	Central European University	Austria	—
4	Who delays climate action? Interest groups and coalitions in state legislative struggles in the United States (2021)	Brown University, University of South Florida, Wellesley Centers for Women	United States	—
5	Subspace estimation from unbalanced and incomplete data matrices: ℓ2,∞ statistical guarantees (2021)	Carnegie Mellon University, Princeton University, Tsinghua University	China, United States	Background
6	Multilayer stochastic block models reveal the multilayer structure of complex networks (2016)	Institució Catalana de Recerca i Estudis Avançats (ICREA), Universitat Rovira i Virgili	Spain	—
7	Model selection and hypothesis testing for large-scale network models with overlapping groups (2014)	IT:U Interdisciplinary Transformation University	—	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).

Citing-text excerpts — how the field used this work

METHODOLOGY Community detection in large hypergraphs

"(75) by using the function dcsbm hypergraph inside the package xgi (76)."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Cornell University	United States	SCImago #61 · THE =18 · QS 16	4
University of Pennsylvania	United States	SCImago #52 · THE 14 · QS 15	4
Stanford University	United States	SCImago #18 · THE =5 · QS 3	4
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2
University of Notre Dame	United States	SCImago #1036 · THE 194 · QS =294	2
Princeton University	United States	SCImago #386 · THE =3 · QS =25	2
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	2

Institution	Country	World ranking	Citing papers
University of Colorado	United States	—	2
Central European University	Austria	SCImago #6390 · THE 251–300	2
Google DeepMind	United Kingdom	SCImago #90	2
Google	United States	—	2
Columbia University	United States	SCImago #65 · THE 20 · QS =38	2
Northwestern University	United States	THE 30 · QS =42	2
Technical University of Darmstadt and Hessian Center for AI and German Research Center for Artificial Intelligence	Germany	—	1
IT:U Interdisciplinary Transformation University	Austria	—	1

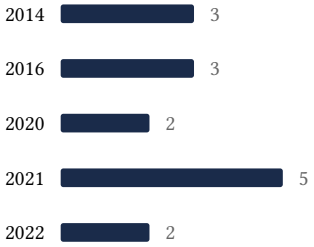
Geographic distribution of citing authors

Country	Citing papers
United States	22
United Kingdom	4
Japan	3
Germany	2
Austria	2
France	1
Iran	1
Ireland	1
Norway	1
Spain	1
Switzerland	1
United Arab Emirates	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	Measurement and Fairness	2	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Learning latent block structure in weighted networks	2	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Efficiently inferring community structure in bipartite networks	7	Dhanasar — Prong 2 (well-positioned)