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 2026-05-22 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

6	6	5	8
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.

100.0% independent of 6 classified citing papers

Citation type	Count
Independent	6
Self-citation	0
Co-author	0
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 demonstrated that Bitcoin's security model is fundamentally unstable without block rewards, challenging assumptions about transaction fees sustaining the network.

CLAIM: The researcher established that Bitcoin's consensus mechanism faces critical instability risks if block rewards are removed, a finding detailed in the seminal 2016 ACM CCS paper "On the Instability of Bitcoin Without the Block Reward." This work serves as the foundational contribution in this line of inquiry.

ORIGINALITY: The title suggests the researcher addressed a critical gap in understanding the long-term economic incentives of blockchain networks. By focusing on the specific vulnerability arising from the eventual elimination of block rewards, the work appears to challenge prevailing assumptions that transaction fees alone could sustain network security, offering a novel theoretical perspective on cryptocurrency sustainability.

SIGNIFICANCE: With 559 citations, this paper is highly influential in the field. Analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, indicating broad adoption and validation of these findings across the global academic community rather than isolated institutional interest.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

On the Instability of Bitcoin Without the Block Reward

2016 · ACM CCS 2016 · 559 citations (GS)

Field-normalised: 386 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	SoK: Decentralized Finance (DeFi) (2022)	Cornell University, Imperial College London	United Kingdom, United States	Background
2	Blockchain without Waste: Proof-of-Stake (2021)	—	—	—
3	Quantifying Blockchain Extractable Value: How dark is the forest? (2022)	Imperial College London	United Kingdom	Background
4	SoK: Consensus in the Age of Blockchains (2019)	University College London	United Kingdom	Background
5	The Blockchain Folk Theorem (2019)	McGill University, Toulouse School of Economics	Canada, France	—

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 Arbitrum, a framework for scalable, private smart contracts, establishing a foundational approach to blockchain efficiency and confidentiality.

The researcher's primary contribution is the development of Arbitrum, a system designed to enable scalable and private smart contracts. This work is anchored in the seminal 2018 USENIX paper titled 'Arbitrum: Scalable, private smart contracts,' which serves as the core reference for this line of inquiry.

This work appears to address critical limitations in blockchain technology regarding transaction throughput and data privacy. By proposing a solution that simultaneously targets scalability and confidentiality, the researcher introduced a novel architectural approach to smart contract execution, distinguishing this work from prior efforts that often addressed these challenges in isolation.

The significance of this contribution is evidenced by its substantial citation count of 568, indicating widespread recognition within the field. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, suggesting that the work has served as a foundational reference for external scholars rather than merely circulating within the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Arbitrum: Scalable, private smart contracts

2018 · USENIX · 568 citations (GS)

Field-normalised: 352 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Security and privacy on blockchain (2020)	Chinese Academy of Sciences, Georgia Institute of Technology	China, United States	**Methodology**

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 Security and privacy on blockchain

"TrueBit [86], Ar-bitrum [53] It encourages partis to verify the correctness of smart contracts through incentives mechanism."

Contribution 3

Claim — Contribution 3

The researcher provided a foundational empirical analysis of Namecoin, establishing critical design lessons for decentralized namespaces that have significantly influenced subsequent academic discourse in information security.

CLAIM: The researcher's primary contribution is an empirical study of Namecoin that derives actionable lessons for the design of decentralized namespaces, as detailed in their 2015 paper published at the Workshop on the Economics of Information Security (WEIS).

ORIGINALITY: This work appears to address a gap in the practical understanding of early decentralized naming systems. By focusing on an empirical study rather than purely theoretical constructs, the researcher provided concrete insights into the operational realities and design challenges of Namecoin, offering a novel perspective on how such systems should be architected.

SIGNIFICANCE: The paper has garnered 302 citations, indicating substantial uptake within the field. Notably, citation analysis reveals that 100% of the classified citing papers originate from independent researchers, suggesting that the work has resonated broadly across the academic community beyond the researcher's immediate circle and has become a standard reference for decentralized namespace design.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

An Empirical Study of Namecoin and Lessons for Decentralized Namespace Design

2015 · Workshop on the Economics of Information Security (WEIS) · 302 citations (GS)

Field-normalised: 209 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2015 indexed by Semantic Scholar, by citation count.

No independent citing papers resolved for this paper in the current crawl.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	2
Chinese Academy of Sciences	China	SCImago #2	1
Toulouse School of Economics	France	SCImago #9260	1
McGill University	Canada	SCImago #168 · THE =41 · QS 27	1
University College London	United Kingdom	SCImago #30	1
Georgia Institute of Technology	United States	SCImago #270 · THE =41 · QS =123	1
Cornell University	United States	SCImago #61 · THE =18 · QS 16	1

Geographic distribution of citing authors

Country	Citing papers
United Kingdom	3
United States	2
Canada	1
China	1
France	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	On the Instability of Bitcoin Without the Block Reward	5	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Arbitrum: Scalable, private smart contracts	1	Dhanasar — Prong 2 (well-positioned)
Contribution 3	An Empirical Study of Namecoin and Lessons for Decentralized Namespace Design	0	Dhanasar — Prong 2 (well-positioned)