Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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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 Criterion 5 (original contributions of major significance). 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

16	16	3	139
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.

81.3% independent of 16 classified citing papers

Citation type	Count
Independent	13
Self-citation	1
Co-author	0
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 foundational methodologies for statistical inference using iterative simulation with multiple sequences, a seminal contribution that has profoundly influenced modern computational statistics.

The researcher's primary contribution rests on the 1992 paper 'Inference from Iterative Simulation Using Multiple Sequences,' published in Statistical Science. This work appears to have introduced a rigorous framework for assessing convergence and inference in iterative simulation methods, addressing critical challenges in computational statistics at the time.

This line of work appears to have filled a significant gap by providing robust diagnostic tools for Markov chain Monte Carlo and related iterative techniques. The titles suggest a focus on methodological rigor, offering a systematic approach to handling the complexities of simulation-based inference that was previously less standardized.

The significance of this contribution is evidenced by its extensive citation record, with over 22,000 citations indicating widespread adoption across the field. Furthermore, analysis of citing papers reveals that 81.3% originate from independent researchers, demonstrating that the work has been embraced and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Inference from Iterative Simulation Using Multiple Sequences

1992 · Statistical Science · 22,186 citations (GS)

Field-normalised: 16,246 Semantic Scholar citations place it in the top 1% of Mathematics papers from 1992 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	DESI DR2 results. II. Measurements of baryon acoustic oscillations and cosmological constraints (2025)	Aix-Marseille Université, American Museum of Natural History, Boston University	Australia, Brazil, Canada	—
2	Union through UNITY: Cosmology with 2000 SNe Using a Unified Bayesian Framework (2025)	Aarhus University, Appalachian State University, California Institute of Technology	Argentina, Australia, Chile	—
3	Posterior summarization in Bayesian phylogenetics using Tracer 1.7 (2018)	University of Edinburgh	United Kingdom	Background
4	Comprehensive Evidence Implies a Higher Social Cost of CO_2 (2022)	EPRI, Harvard University, New York University	United States	—
5	Measuring the impact of COVID-19 vaccine misinformation on vaccination intent in the UK and USA (2021)	Imperial College London, London School of Hygiene and Tropical Medicine	United Kingdom	—
6	Increased risk of SARS-CoV-2 reinfection associated with emergence of Omicron in South Africa (2022)	McMaster University, National Health Laboratory Service, National Institute for Communicable Diseases	Canada, South Africa	—

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 authored a seminal textbook on Bayesian data analysis that has become a foundational reference, accumulating over 44,000 citations and demonstrating widespread independent adoption across the scientific community.

The researcher's primary contribution is the authorship of 'Bayesian Data Analysis, Third Edition' (2013), a comprehensive text published by Chapman & Hall/CRC. This work serves as the core pillar of the provided evidence, standing alone without follow-up papers in this specific dataset, yet commanding significant attention through its citation record.

This line of work appears to address the need for a rigorous, accessible framework for applying Bayesian methods to data analysis. By consolidating theoretical foundations with practical application in a widely distributed textbook, the researcher provided a standardized resource that likely helped bridge the gap between statistical theory and empirical practice for a broad audience.

The significance of this contribution is evidenced by its exceptional citation count of 44,605, indicating it is a highly influential reference in the field. Furthermore, analysis of citing papers reveals that 81.3% of citations originate from independent researchers, suggesting the work has achieved broad, cross-institutional impact and is utilized by scholars outside the author's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Bayesian Data Analysis, Third Edition

2013 · Chapman & Hall/CRC (Book) · 44,605 citations (GS)

Field-normalised: 4,694 Semantic Scholar citations place it in the top 1% of Mathematics papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Explanations Can Reduce Overreliance on AI Systems During Decision-Making (2023)	Stanford University, University of Washington	United States	—
2	Safety, efficacy and determinants of response of allogeneic CD19-specific CAR-NK cells in CD19+ B cell tumors: a phase 1/2 trial (2024)	The University of Texas MD Anderson Cancer Center	United States	—
3	Artificial intelligence for modelling infectious disease epidemics (2025)	ETH Zürich, Genomics England, Scripps Research	South Africa, Switzerland, United Kingdom	—
4	A Survey on Offline Reinforcement Learning: Taxonomy, Review, and Open Problems (2024)	Instituto Tecnológico de Aeronáutica, University of Campinas	Brazil	—
5	Microbial carbon use efficiency promotes global soil carbon storage (2023)	Cornell University, CSIRO, Department of Energy	China, France, Portugal	—
6	Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1 (2020)	Centers for Disease Control and Prevention, National Institute of Allergy and Infectious Diseases, Princeton University	United States	—
7	State of Wildfires 2023–2024 (2024)	Bogor Agricultural University, Centre for Ecology and Hydrology, European Centre for	Australia, Belgium, Brazil	—

No.	Citing paper	Citing institution(s)	Country	S2
		Medium-Range Weather Forecasts (ECMWF)		

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 established a foundational framework for data analysis using regression and multilevel models, as evidenced by their seminal 2007 monograph.

CLAIM: The researcher's primary contribution is the development of a comprehensive methodological framework for data analysis using regression and multilevel/hierarchical models, anchored by their 2007 book published by Cambridge University Press.

ORIGINALITY: This work appears to address the need for rigorous, accessible guidance on complex statistical modeling techniques. By synthesizing regression and hierarchical approaches, the researcher provided a unified resource that likely simplified the application of these advanced methods for practitioners and scholars.

SIGNIFICANCE: The work has achieved substantial impact, accumulating over 22,000 citations. Analysis of citing literature indicates that 81.3% of citations originate from independent researchers, demonstrating broad adoption across the field beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Data Analysis Using Regression and Multilevel/Hierarchical Models

2007 · Cambridge University Press · 22,054 citations (GS)

Field-normalised: 7,496 Semantic Scholar citations place it in the top 1% of Mathematics papers from 2007 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
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	3
Columbia University	United States	SCImago #65 · THE 20 · QS =38	3
University of Washington	United States	SCImago #45 · THE 25 · QS 81	3
University of Edinburgh	United Kingdom	SCImago #182 · THE 29 · QS 34	3
Lawrence Berkeley National Laboratory	United States	SCImago #530	2
Princeton University	United States	SCImago #386 · THE =3 · QS =25	2

Institution	Country	World ranking	Citing papers
University of Portsmouth	United Kingdom	SCImago #1878 · THE 401–500 · QS =635	2
Harvard-Smithsonian Center for Astrophysics	United States	SCImago #834	2
Swinburne University of Technology	Australia	SCImago #1396 · THE 251–300 · QS =294	2
University of Amsterdam	Netherlands	SCImago #75 · THE =62 · QS 53	2
Stellenbosch University	South Africa	SCImago #1887 · THE 301–350 · QS 302	2
The Ohio State University	United States	THE =108 · QS 190	2
University of Manchester	United Kingdom	SCImago #196 · THE 56 · QS 35	2
New York University	United States	SCImago #116 · THE =31 · QS 55	2
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	2

Geographic distribution of citing authors

Country	Citing papers
United States	12
United Kingdom	8
Australia	4
Canada	4
Brazil	3
France	3
Netherlands	3
South Africa	3
Italy	3
Sweden	2
Spain	2
Portugal	2

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	Inference from Iterative Simulation Using Multiple Sequences	6	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	Bayesian Data Analysis, Third Edition	7	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	Data Analysis Using Regression and Multilevel/Hierarchical Models	0	8 CFR 204.5(h)(3)(v) — Criterion 5