Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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

10	11	2	25
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 10 classified citing papers

Citation type	Count
Independent	10
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 authored a seminal monograph on Random Matrix Theory, establishing a foundational reference that has garnered substantial independent scholarly attention.

CLAIM: The researcher's primary contribution is the publication of the monograph 'Topics in Random Matrix Theory' in 2005, which serves as a core reference in the field. This work stands as a singular, comprehensive contribution without direct follow-up papers by the same author in this specific line of inquiry.

ORIGINALITY: The title and venue suggest the work addresses the need for a structured, graduate-level synthesis of Random Matrix Theory. By publishing with the American Mathematical Society, the researcher appears to have filled a gap for rigorous, accessible exposition in this complex mathematical domain, offering a consolidated resource for advanced study.

SIGNIFICANCE: The monograph has accumulated 686 citations, indicating it is a highly cited and influential text. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the work has been widely adopted and utilized by the broader academic community beyond the author's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Topics in Random Matrix Theory

2005 · American Mathematical Society (Graduate Studies in Mathematics, Volume 132) · 686 citations (GS)

Field-normalised: 1,083 Semantic Scholar citations place it in the top 1% of Mathematics papers from 2005 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Random matrix theory in statistics: A review (2014)	University of California, Davis	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher established a foundational theoretical framework for analyzing the spectral properties of large random matrices subjected to finite, low-rank perturbations.

CLAIM: The researcher's seminal contribution is anchored in the 2011 paper published in Advances in Mathematics, which addresses the eigenvalues and eigenvectors of finite, low-rank perturbations of large random matrices. This work stands as a core theoretical advancement in the field, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

ORIGINALITY: The titles suggest this work addresses a critical gap in random matrix theory by characterizing how small, structured changes affect the spectral behavior of large systems. By focusing on finite, low-rank perturbations, the research appears to provide precise analytical tools for understanding deviations from standard random matrix ensembles, a problem of significant theoretical interest.

SIGNIFICANCE: With 709 citations, the paper is highly influential. Notably, 100% of the classified citing papers originate from independent researchers, indicating broad adoption across the global academic community. This high degree of independent citation underscores the work's status as a standard reference and its substantial impact on subsequent research directions.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

The eigenvalues and eigenvectors of finite, low rank perturbations of large random matrices

2011 · Advances in Mathematics · 709 citations (GS)

Field-normalised: 567 Semantic Scholar citations place it in the top 1% of Mathematics papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Cleaning large correlation matrices: Tools from Random Matrix Theory (2017)	Capital Fund Management	—	—
2	SC3: consensus clustering of single-cell RNA-seq data (2017)	Imperial College London, The Babraham Institute, University of Cambridge	Belgium, United Kingdom	—
3	Random matrix theory in statistics: A review (2014)	University of California, Davis	United States	—
4	High-dimensional Asymptotics of Feature Learning: How One Gradient Step Improves the Representation (2022)	Microsoft, University of California, San Diego, University of Tokyo; RIKEN	Canada, Japan, United States	—
5	High-dimensional dynamics of generalization error in neural networks (2020)	Harvard University	United States	—
6	Random Matrix Methods for Machine Learning (2022)	Grenoble Alpes University, Huazhong University of Science and Technology	China, France	—
7	The low-rank hypothesis of complex systems (2024)	—	—	—
8	A First Course in Random Matrix Theory: For Physicists, Engineers and Data Scientists (2021)	Capital Fund Management	—	—
9	Factors that Fit the Time Series and Cross-Section of Stock Returns (2018)	Stanford University, University of California, Berkeley	United States	—
10	Learning in the Presence of Low-dimensional Structure: A Spiked Random Matrix Perspective (2023)	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Capital Fund Management	—	—	2

Institution	Country	World ranking	Citing papers
University of California, Davis	United States	SCImago #194 · THE 64 · QS =114	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
University of California, San Diego	United States	SCImago #120 · THE 47 · QS 66	1
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
Imperial College London	United Kingdom	SCImago #69 · THE 8 · QS 2	1
Microsoft	United States	—	1
Harvard University	United States	SCImago #4 · THE =5 · QS 5	1
Wellcome Trust Sanger Institute	United Kingdom	SCImago #204	1
The Babraham Institute	United Kingdom	—	1
University of Namur	Belgium	SCImago #4594 · THE 801–1000 · QS 801-850	1
University of Toronto and Vector Institute for Artificial Intelligence	Canada	—	1
University of Tokyo; RIKEN	Japan	—	1
Stanford University	United States	SCImago #18 · THE =5 · QS 3	1
Huazhong University of Science and Technology	China	SCImago #25 · THE =176 · QS 319	1

Geographic distribution of citing authors

Country	Citing papers
United States	4
Canada	1
China	1
Belgium	1
Japan	1
United Kingdom	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	Topics in Random Matrix Theory	1	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	The eigenvalues and eigenvectors of finite, low rank perturbations of large random matrices	10	8 CFR 204.5(i)(3) — Outstanding Researcher