

# Metrics & Visualizations

in the Smithsonian/NASA Astrophysics Data System

Edwin Henneken  
Smithsonian Astrophysical Observatory



# ADS Classic - 1992

**[SAO/NASA ADS](#) Astronomy Query Form for Edwin Henneken**

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Databases to query:  [Astronomy](#)  [Physics](#)  [arXiv e-prints](#)

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**Authors:** (Last, First M, one per line)  [SIMBAD](#)  [NED](#)  [ADS Objects](#)  
 [Exact name matching](#) [Object name/position search](#)  
 [Require author for selection](#)  [Require object for selection](#)  
 OR  AND  [simple logic](#) (Combine with:  OR  AND)

Publication Date between   and    
 (MM) (YYYY) (MM) (YYYY)

Enter [Title Words](#)  [Require title for selection](#)  
 (Combine with:  OR  AND  [simple logic](#)  [boolean logic](#))

Enter [Abstract Words/Keywords](#)  [Require text for selection](#)  
 (Combine with:  OR  AND  [simple logic](#)  [boolean logic](#))

Return  items starting with number

Search within articles using [ADS Bumblebee](#)

[myADS](#): Personalized notification service

[Private Library](#) and [Recently read articles](#) for Edwin Henneken

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## ADS Classic - 1992

**SAO/NASA ADS Astronomy Query Form for Edwin Henneken**

[Sitemap](#) [What's](#)

Want to change your

**Databases**

**Authors:** (Last Name)

Exact

Required

OR

**Publication**

**Enter Title**

(Combine)

**Enter Abstract**

(Combine)

**Private List**

**Query Results from the ADS Database**

Selected and retrieved 91 abstracts.

#	Bibcode Authors	Score Title	Date	<a href="#">List of Links</a> <a href="#">Access Control Help</a>
1	<a href="#">2015arXiv151009099K</a> Kurtz, Michael J.; Henneken, Edwin A.	1.000 Measuring Metrics - A forty year longitudinal cross-validation of citations, downloads, and peer review in Astrophysics	10/2015	<a href="#">A Z</a> <a href="#">X</a> <a href="#">U</a>
2	<a href="#">2015ASPC..495..401C</a> Chyla, R.; Accomazzi, A.; Holachek, A.; Grant, C. S.; Elliott, J.; Henneken, E. A.; Thompson, D. M.; Kurtz, M. J.; Murray, S. S.; Sudilovsky, V.	1.000 ADS 2.0: New Architecture, API and Services	09/2015	<a href="#">A Z E</a> <a href="#">L X</a> <a href="#">T R</a> <a href="#">U</a>
3	<a href="#">2015IAUGA..2257768A</a> Accomazzi, Alberto; Kurtz, Michael J.; Henneken, Edwin; Grant, Carolyn S.; Thompson, Donna; Chyla, Roman; Holachek, Alexandra; Sudilovsky, Vladimir; Elliott, Jonathan; Murray, Stephen S.	1.000 The NASA Astrophysics Data System joins the Revolution	08/2015	<a href="#">A Z</a> <a href="#">U</a>
4	<a href="#">2015BASIS..41..40H</a> Henneken, Edwin A.	1.000 Unlocking and Sharing Data in Astronomy	04/2015	<a href="#">A Z E F</a>
5	<a href="#">2015ASPC..492..208G</a> Grant, C. S.; Thompson, D. M.; Chyla, R.; Holachek, A.; Accomazzi, A.; Henneken, E. A.; Kurtz, M. J.; Luker, J.; Murray, S. S.	1.000 Enabling Meaningful Affiliation Searches in the ADS	04/2015	<a href="#">A Z E</a> <a href="#">L</a> <a href="#">T C</a>
6	<a href="#">2015ASPC..492..189A</a> Accomazzi, A.; Kurtz, M. J.; Henneken, E. A.; Chyla, R.; Luker, J.; Grant, C. S.; Thompson, D. M.; Holachek, A.; Dave, R.; Murray, S. S.	1.000 ADS: The Next Generation Search Platform	04/2015	<a href="#">A Z E</a> <a href="#">L X</a> <a href="#">T R C</a> <a href="#">U</a>
7	<a href="#">2015ASPC..492..150T</a> Thompson, D. M.; Henneken, E. A.; Grant, C. S.; Holachek, A.; Accomazzi, A.; Kurtz, M. J.; Chyla, R.; Luker, J.; Murray, S. S.	1.000 Saving the Orphaned Astronomical Literature	04/2015	<a href="#">A Z E</a> <a href="#">L</a> <a href="#">T R</a> <a href="#">U</a>
8	<a href="#">2015ASPC..492..80H</a> Henneken, E. A.; Accomazzi, A.; Kurtz, M. J.; Grant, C. S.; Thompson, D.; Luker, J.; Chyla, R.; Holachek, A.; Murray, S. S.	1.000 Computing and Using Metrics in the ADS	04/2015	<a href="#">A Z E</a> <a href="#">L X</a> <a href="#">T R C</a> <a href="#">U</a>
9	<a href="#">2015AAS...22533656H</a> Henneken, Edwin A.; Accomazzi, Alberto; Kurtz, Michael J.; Thompson, Donna; Grant, Carolyn S.; Murray, Stephen S.	1.000 Online Activity Around Scholarly Astronomy Literature - A Discussion of Altmetrics	01/2015	<a href="#">A Z</a>
10	<a href="#">2015AAS...22533655A</a> Accomazzi, Alberto; Kurtz, Michael J.; Henneken, Edwin A.; Grant, Carolyn S.; Thompson, Donna; Chyla, Roman; Holachek, Alexandra; Sudilovsky, Vladimir; Murray, Stephen S.	1.000 Improved Functionality and Curation Support in the ADS	01/2015	<a href="#">A Z</a>
11	<a href="#">2014bbmb.book..243K</a> Kurtz, Michael J.; Henneken, Edwin A.	1.000 Finding and Recommending Scholarly Articles	05/2014	<a href="#">A Z E</a> <a href="#">X</a> <a href="#">R</a> <a href="#">U</a>

# ADS "Bumblebee"

ads beta    Feedback    ORCID    Learn    My Account

astrophysics data system

Classic    Modern    Paper

INSERT FIELD: Author   First Author   Abstract   Year   Fulltext   Reviews(...)   Citations(...)

Search Form - [input] [search]

Field	Syntax	Example
Author	author:"last, first"	author:"huchra, john"
First Author	author:"^last, first"	author:"^huchra, john"
Abstract + Title	abs:"phrase"	abs:"dark energy"
Year	year:YYYY	year:2000
Year Range	year:YYYY-YYYY	year:2000-2005
Publication	bibstem:"abbrev"	bibstem:ApJ

# ADS "Bumblebee"

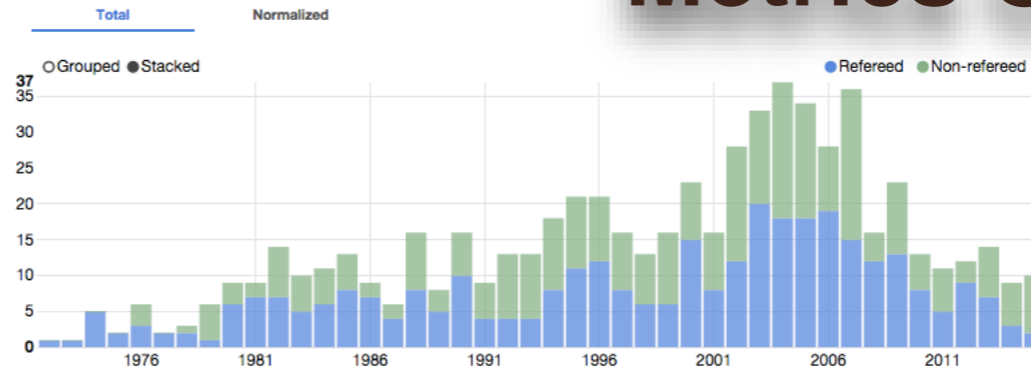
The screenshot displays the ADS beta search interface. At the top, the search bar contains the query "author:henneken,e" and indicates that 91 results were returned. The results are sorted by "Publication Date". On the left, there are filters for authors (Henneken, E., Kurtz, M., Accomazzi, A., Grant, C., Murray, S.), collections (astronomy, physics, general), and refereed status (refereed, not-refereed). The main results list includes:

- 1. 2015arXiv151009099K (2015/10) **Measuring Metrics - A forty year longitudinal cross-validation of citations, downloads, and peer review in Astrophysics** by Kurtz, Michael J.; Henneken, Edwin A.
- 2. 2015ASPC..495..401C (2015/09) **ADS 2.0: New Architecture, API and Services** by Chyla, R.; Accomazzi, A.; Holachek, A. and 7 more
- 3. 2015IAUGA..2257768A (2015/08) **The NASA Astrophysics Data System joins the Revolution** by Accomazzi, Alberto; Kurtz, Michael J.; Henneken, Edwin and 7 more
- 4. 2015ASPC..492..208G (2015/04) **Enabling Meaningful Affiliation Searches in the ADS** by Grant, C. S.; Thompson, D. M.; Chyla, R. and 6 more (cited: 2)
- 5. 2015ASPC..492...80H (2015/04) **Computing and Using Metrics in the ADS** by Henneken, E. A.; Accomazzi, A.; Kurtz, M. J. and 6 more (cited: 1)
- 6. 2015ASPC..492..150T (2015/04) **Saving the Orphaned Astronomical Literature** by Thompson, D. M.; Henneken, E. A.; Grant, C. S. and 6 more
- 7. 2015BASIS..41...40H (2015/04) **Unlocking and Sharing Data in Astronomy** by Henneken, Edwin A. (cited: 1)
- 8. 2015ASPC..492..189A (2015/04) **ADS: The Next Generation Search Platform** by Accomazzi, A.; Kurtz, M. J.; Henneken, E. A. and 7 more (cited: 1)
- 9. 2015AAS...22533656H (2015/01) **Online Activity Around Scholarly Astronomy Literature - A Discussion of Altmetrics** by Henneken, Edwin A.; Accomazzi, Alberto; Kurtz, Michael J. and 3 more

On the right side, there is a "Citation Metrics" panel with a bar chart showing the number of refereed papers over time. The chart shows a significant increase in the number of papers starting around 2003, peaking in 2007-2008. Below the chart, there is a filter to "Limit results to papers from" 1991 to 2015.

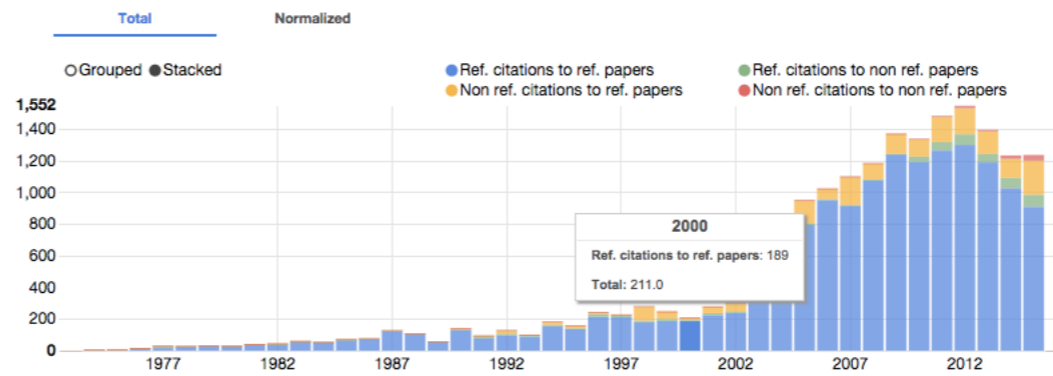
# Metrics Overview

	Totals	Refereed
Number of papers	630	337
Normalized paper count	233.4	96.1



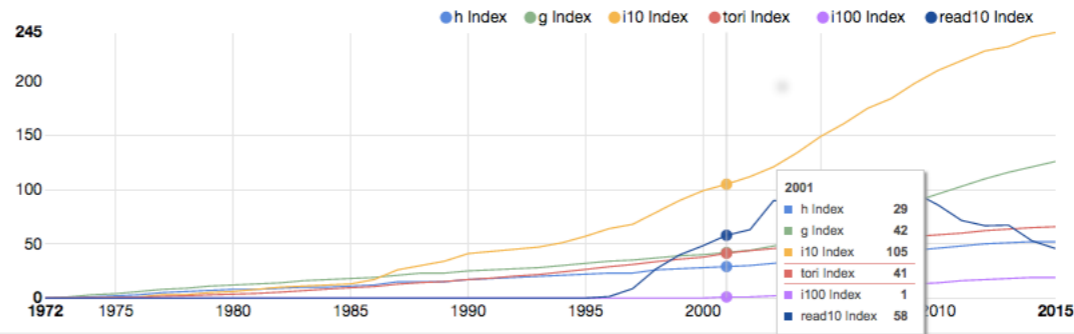
## Citations

	Totals	Refereed
Number of citing papers	10485	10057
Total citations	18599	17878
Number of self-citations	1761	1677
Average citations	29.5	53.1
Median citations	4	18
Normalized citations	2325.7	2207.7
Refereed citations	16415	15831
Average refereed citations	26.1	47.0
Median refereed citations	4	16
Normalized refereed citations	2081.5	1977.3



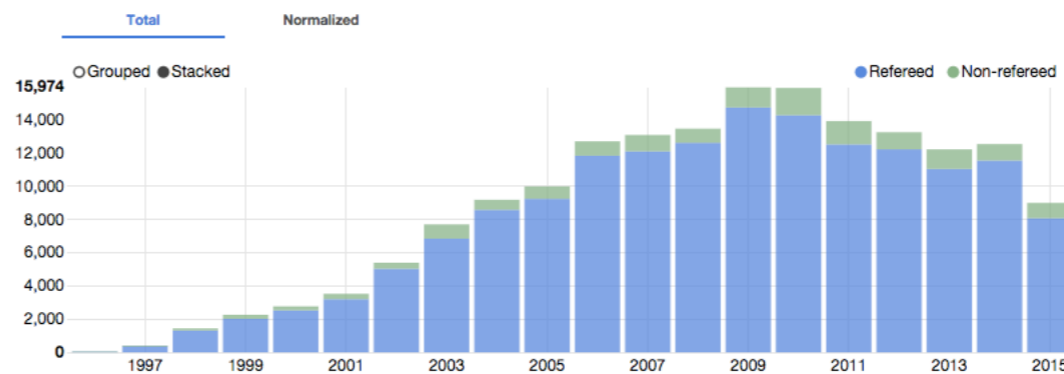
## Indices

	Totals	Refereed
H Index	53	52
m-index	1.2	1.2
g-index	126	125
i10-index	245	235
i100-index	19	18
tori index	65.8	62.4
riq index	184	179
read10-index	456.5	371.1



## Reads

	Totals	Refereed
Total number of reads	174930	160352
Average number of reads	279.4	475.8
Median number of reads	86.5	265
Total number of downloads	93318	89153
Average number of downloads	149.1	264.5
Median number of downloads	41	41



### Citations

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Number of papers	630	337
Normalized paper count	233.4	96.1

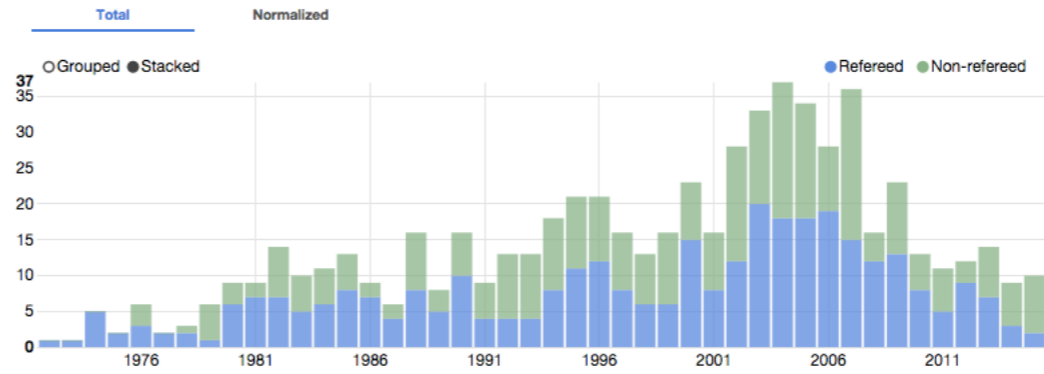
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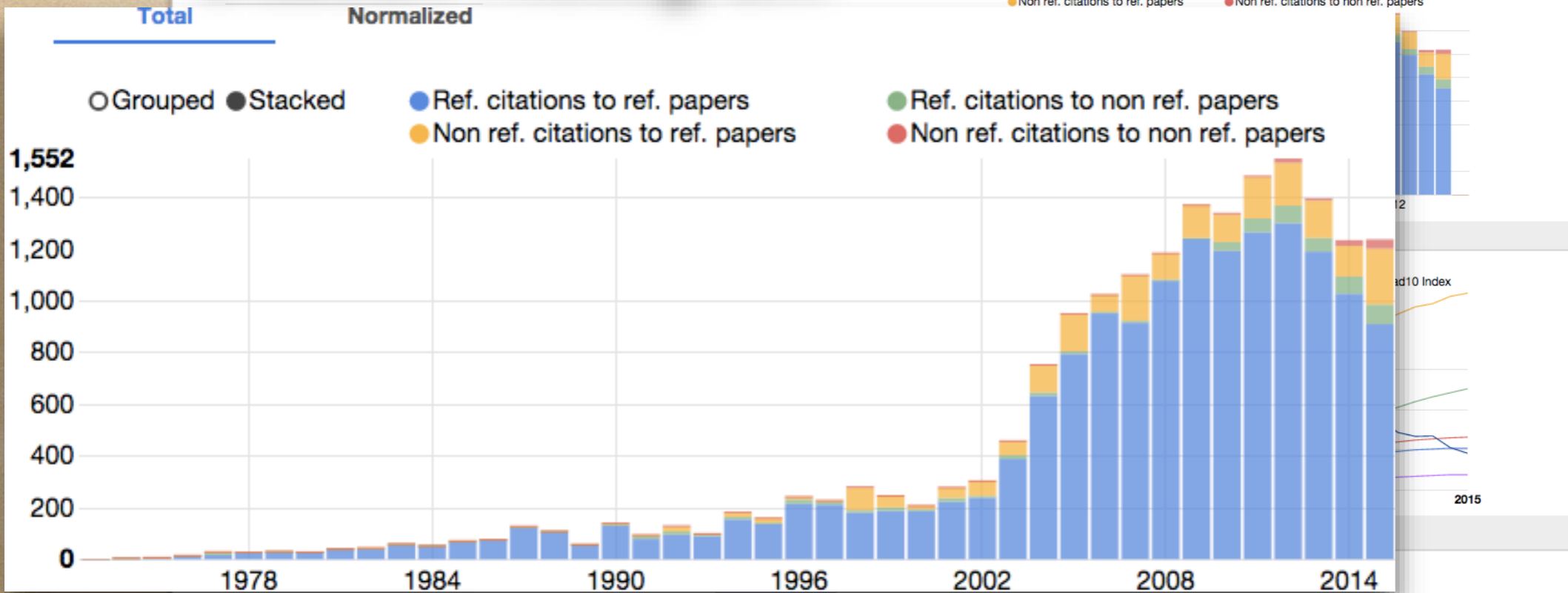
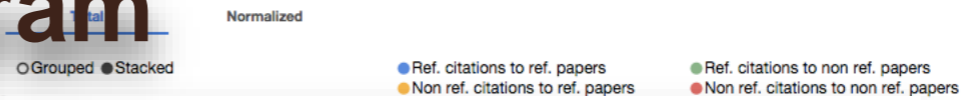
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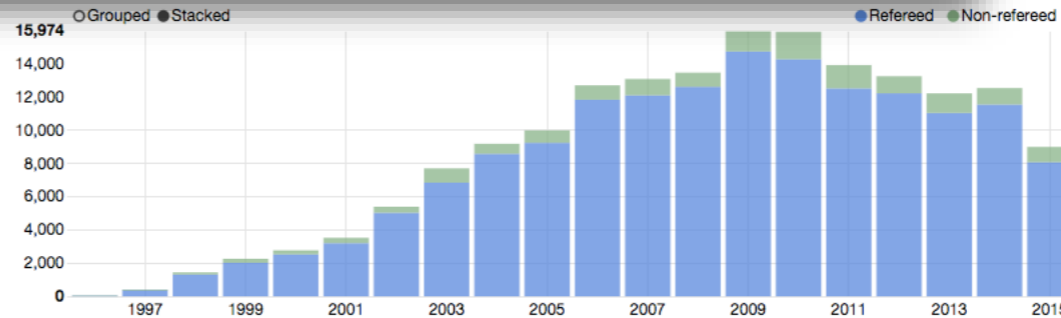
Citations

# Citation Histogram

	Total	Refereed
Number of citing papers	10485	10057
Total citations	18599	17878

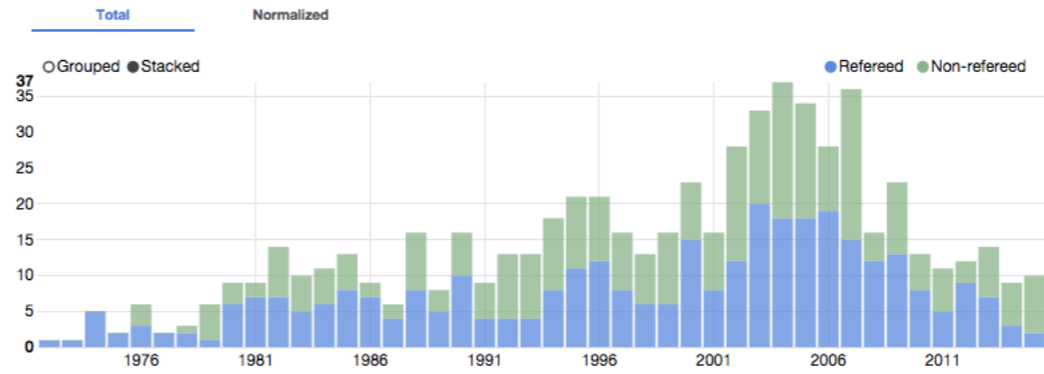


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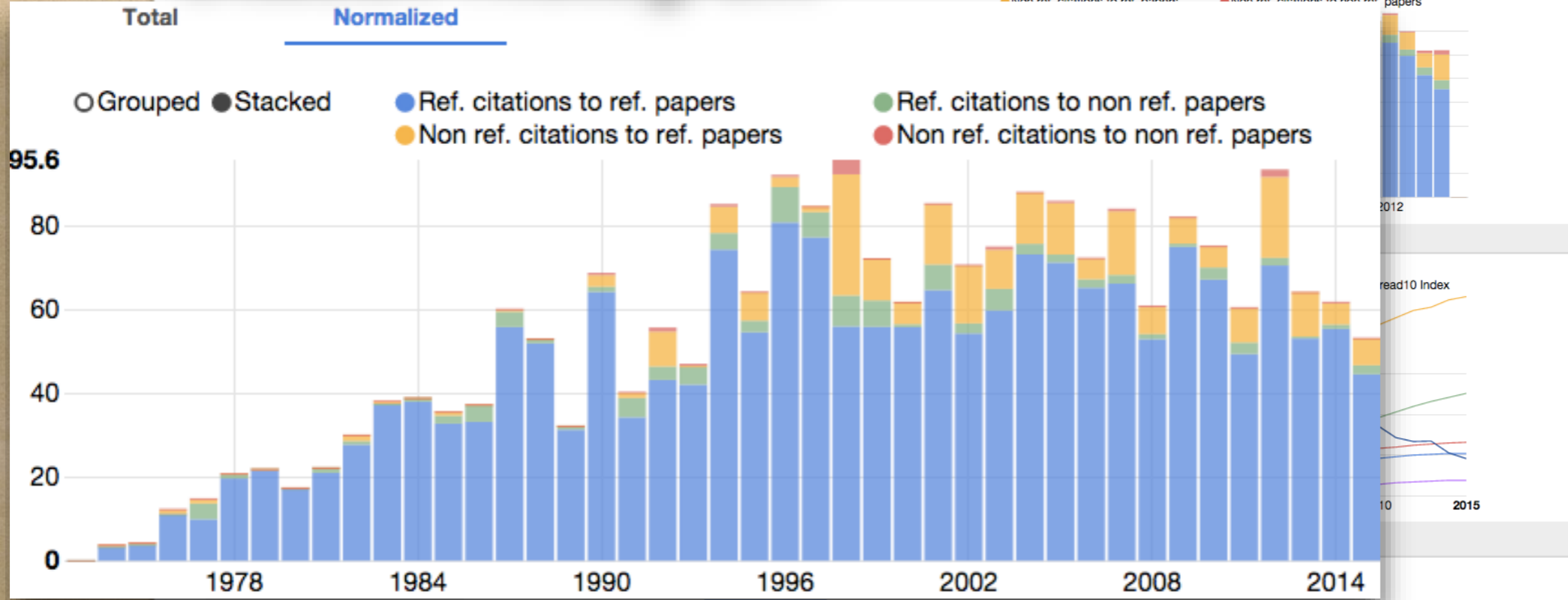


Citations

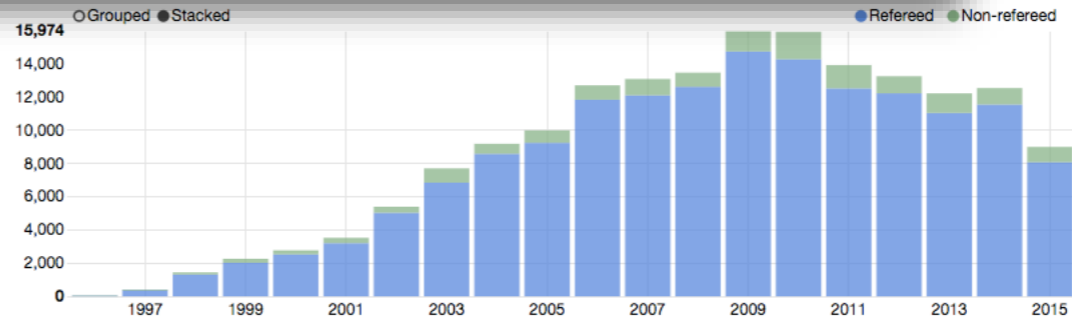
# Citation Histogram

	Total	Refereed
Number of citing papers	10485	10057
Total citations	18599	17878

Normalized  
 ○ Grouped ● Stacked  
 ● Ref. citations to ref. papers ● Ref. citations to non ref. papers  
 ● Non ref. citations to ref. papers ● Non ref. citations to non ref. papers

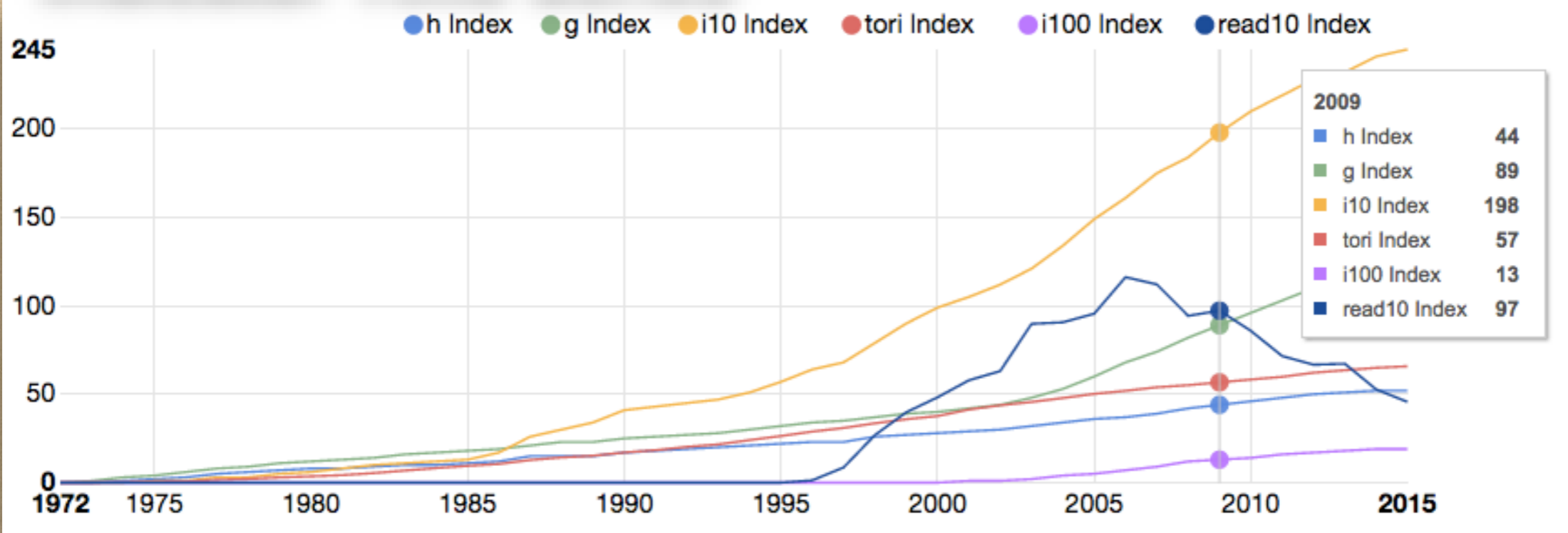
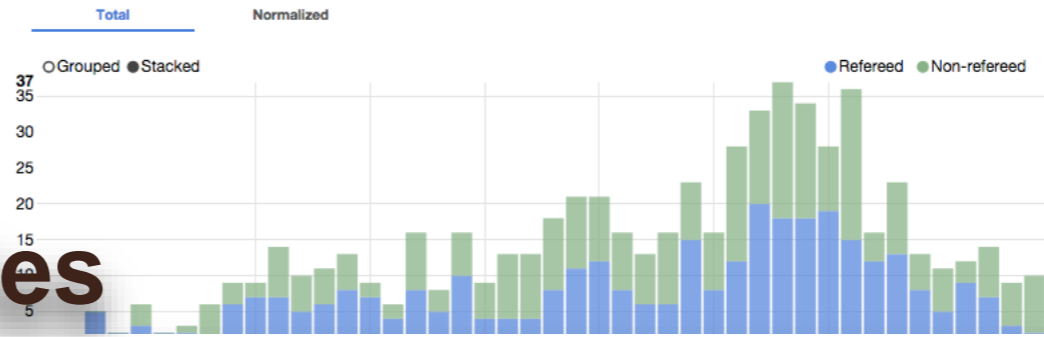


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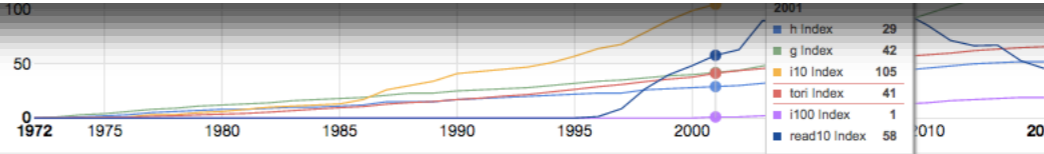


# Indicator Time Series

	Totals	Refereed
Number of papers	630	337
Normalized paper count	233.4	96.1

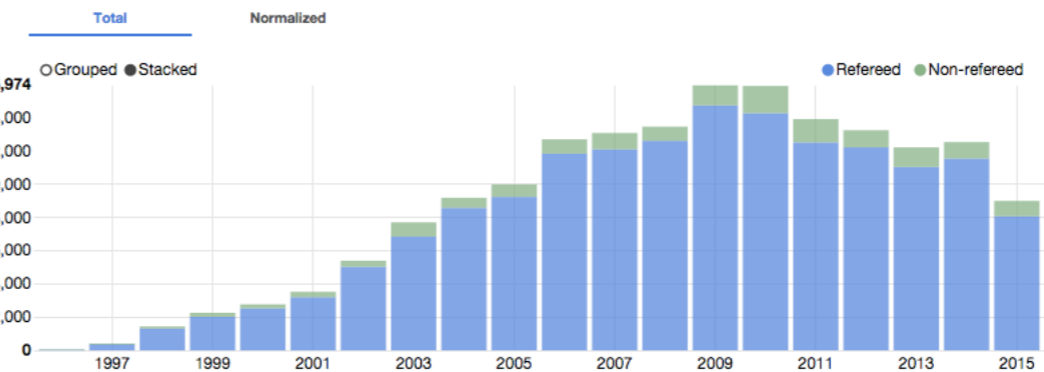


tori index	65.8	62.4
riq index	184	179
read10-index	456.5	371.1

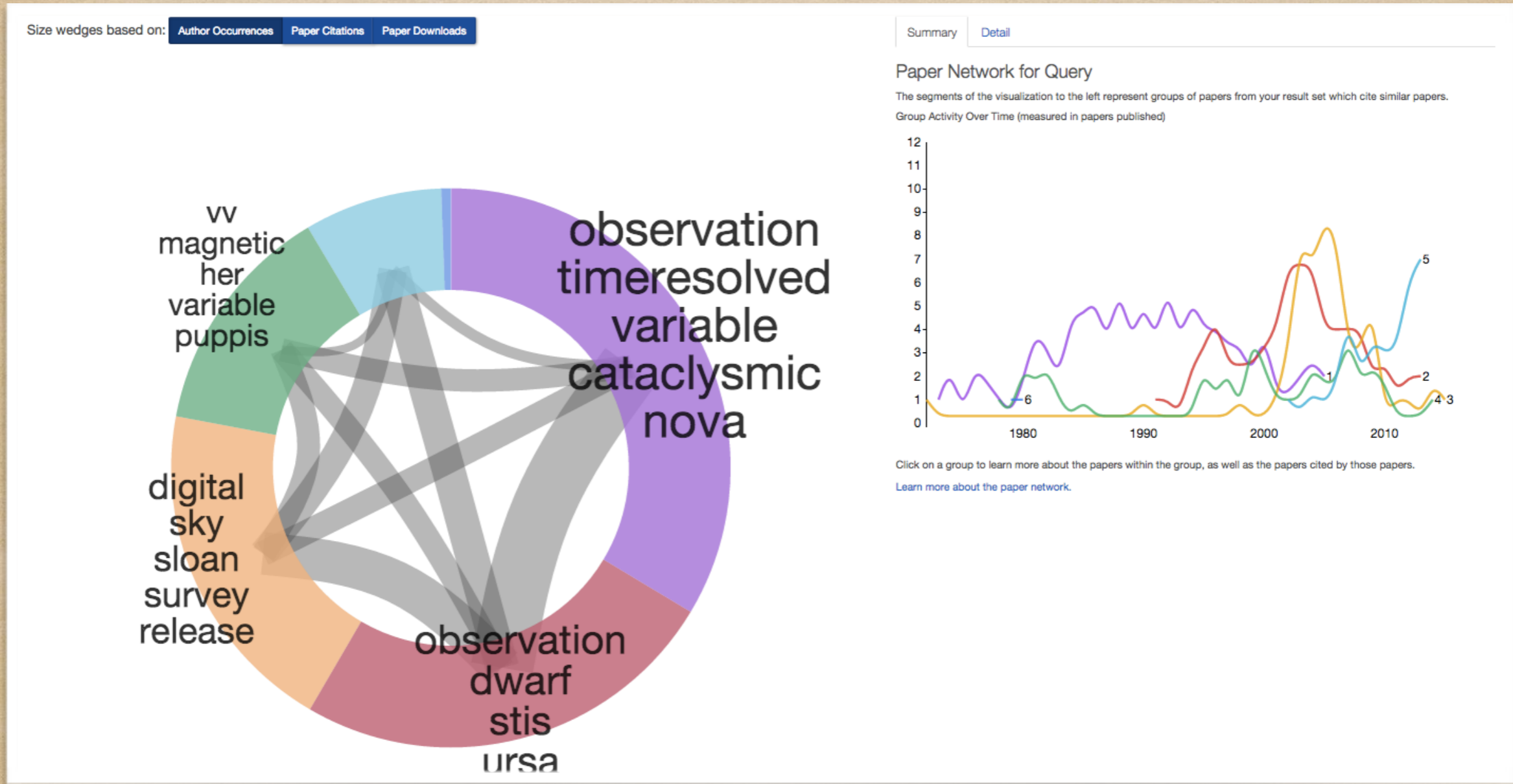


## Reads

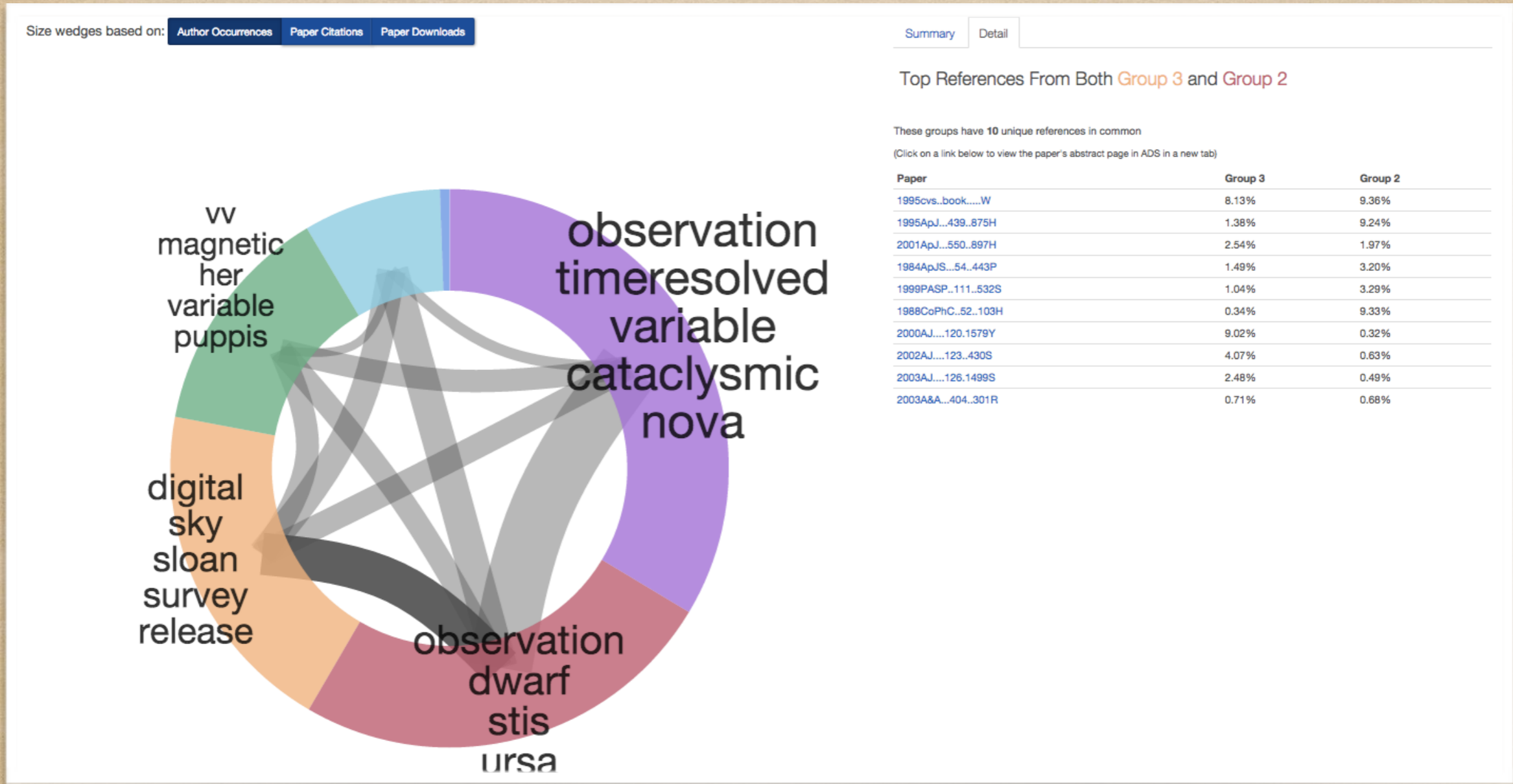
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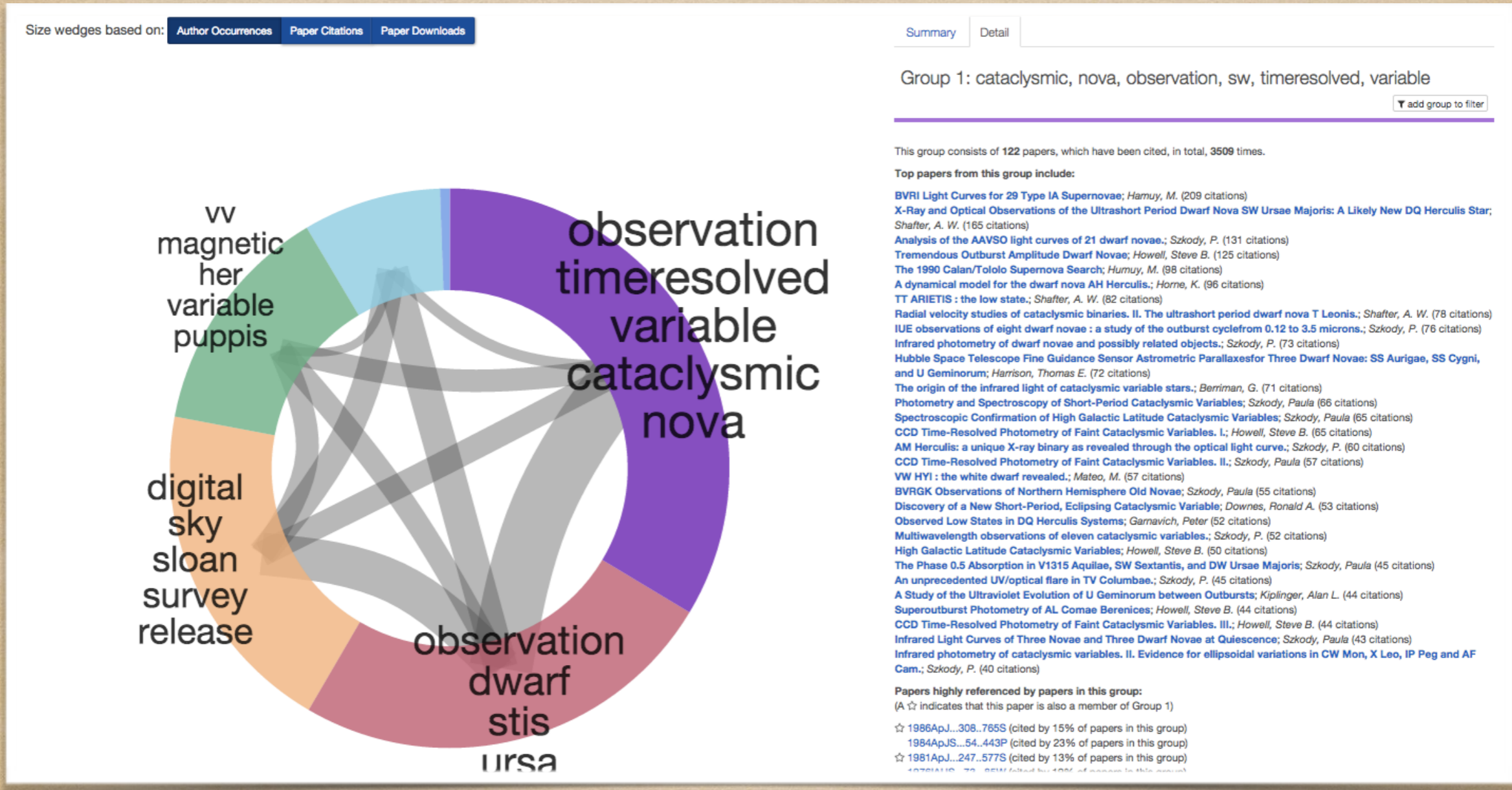
# Paper Network Visualization - Co-Citation Network



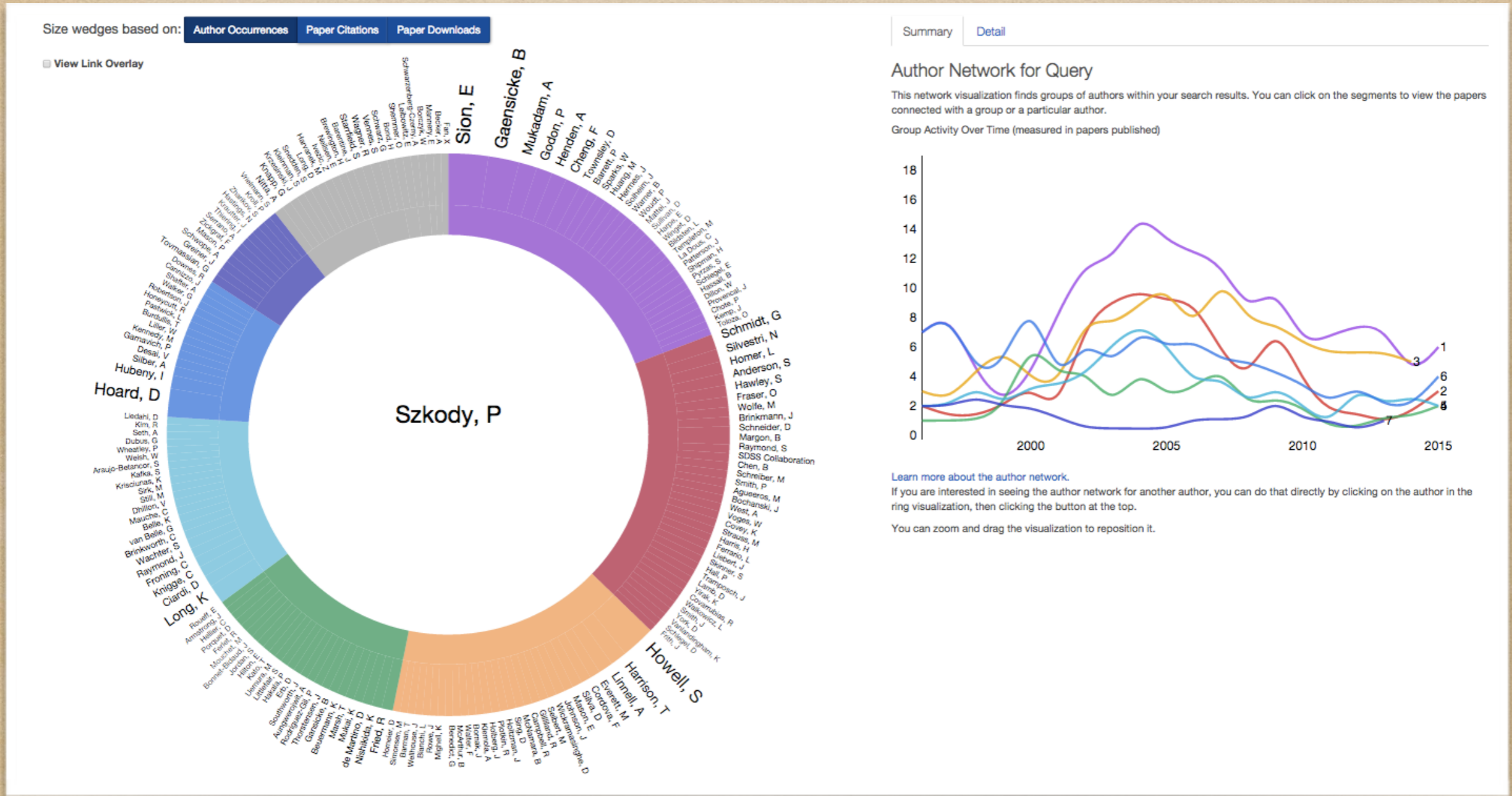
# Paper Network Visualization - Co-Citation Network



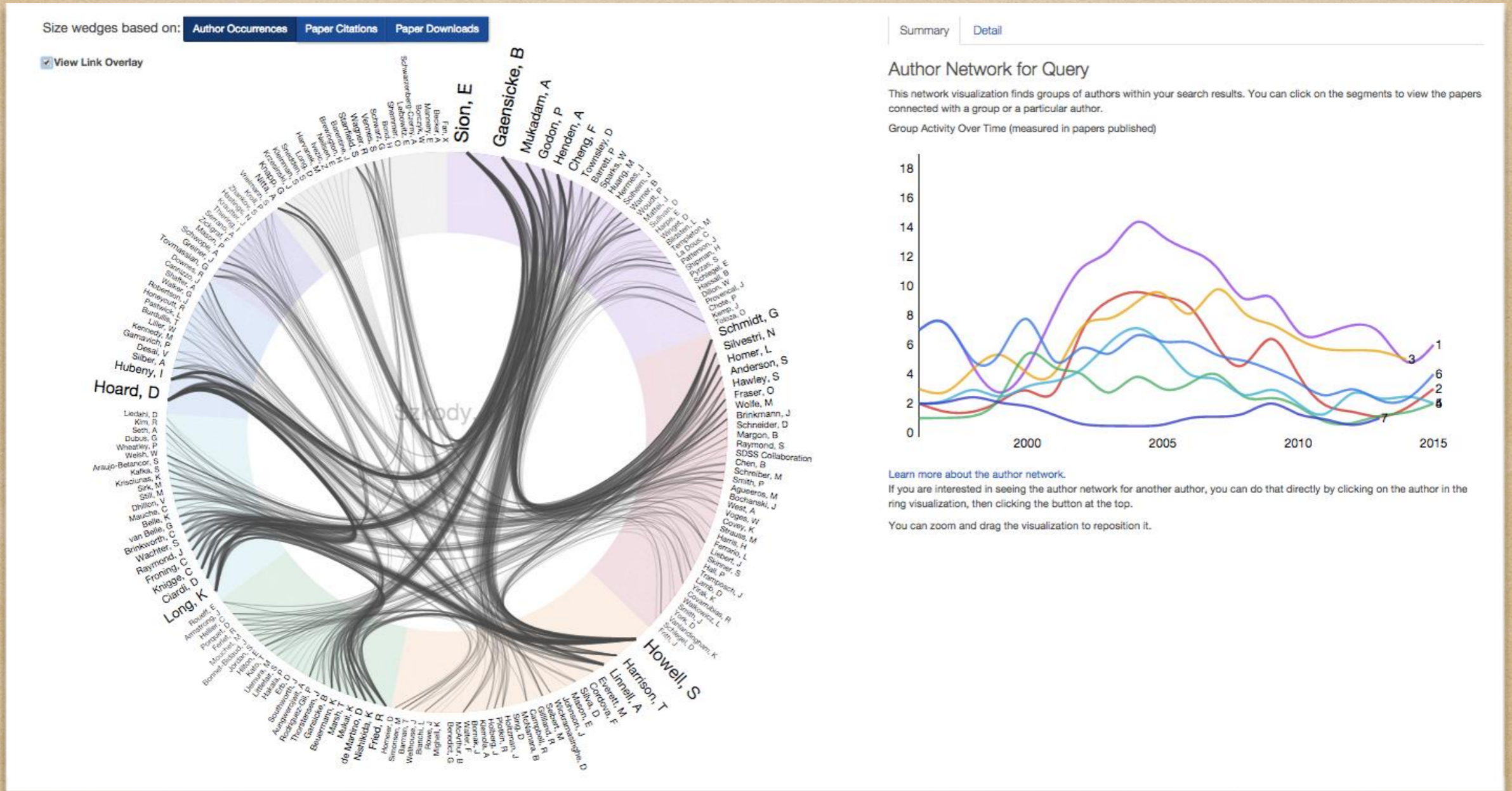
# Paper Network Visualization - Co-Citation Network



# Author Network Visualization - Co-Author Network



# Author Network Visualization - Co-Author Network







# Custom Metrics

“Meet the Powerful new ADS Query Language”

## Examples:

“papers mentioning objects but not citing the discovery paper of them”

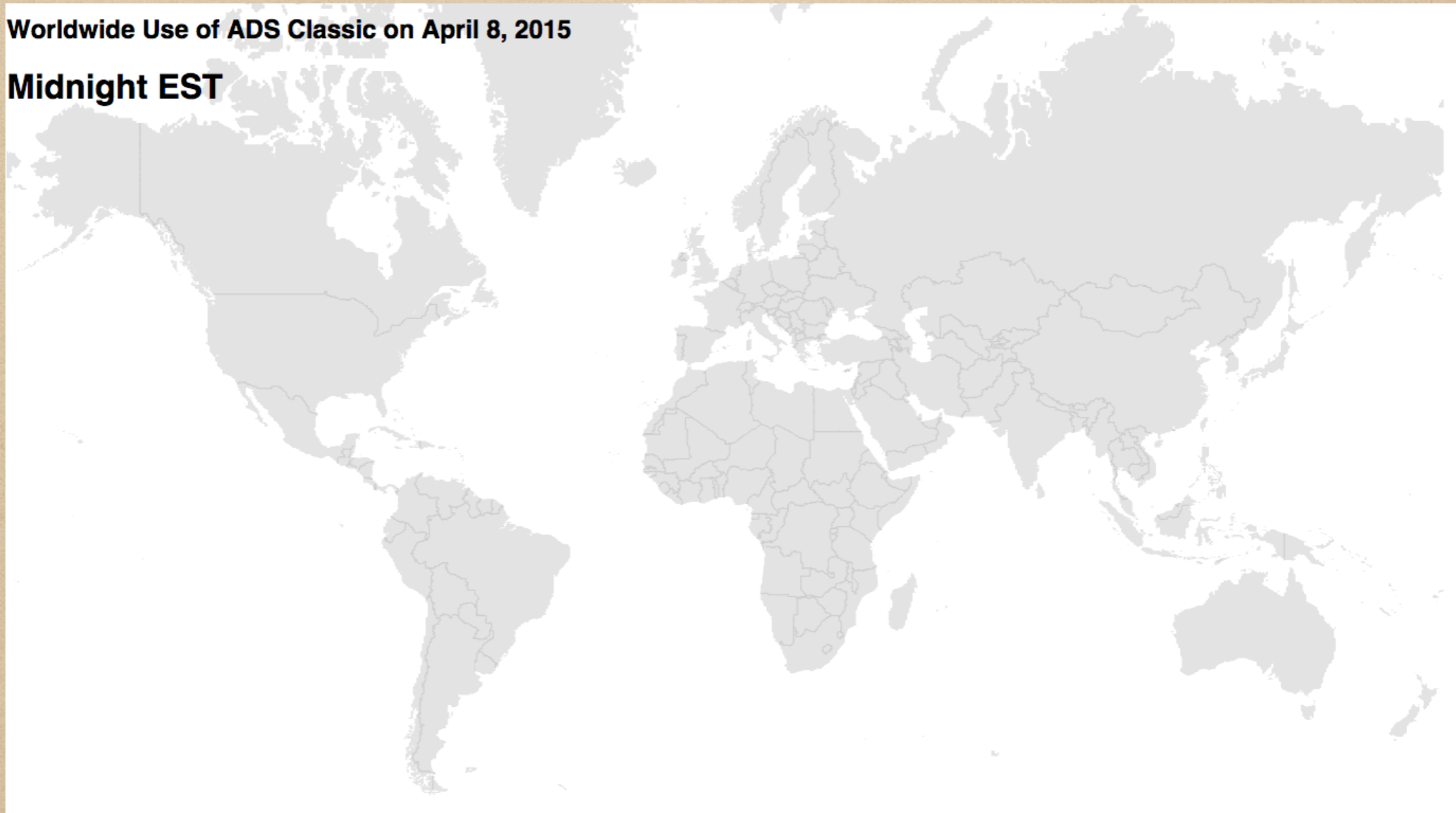
`full:("NGC1277" or "NGC 1277") year:2013-2016 NOT citations(bibcode:"2012Natur.491..729V")`

“which journals were cited by papers in Monthly Notices of the R.A.S. in 2010?”

`references(bibstem:"MNRAS" year:2010)`

**Worldwide Use of ADS Classic on April 8, 2015**

**Midnight EST**



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[adslabs.org](http://adslabs.org)