

# **Benjamin Davis**

(Impactio

Research Associate at New York University Abu Dhabi Center for Astro, Particle, and Planetary Physics

Abu Dhabi, Abu Dhabi, United Arab Emirates

(m	impactio.com/researcher/
	benjamin-davis







#### About

I work at the Center for Astro, Particle, and Planetary Physics (CAP3) at New York University Abu Dhabi, where I am a CAP3 Fellow, Research Associate. My research involves studying the structure of spiral galaxies. To do this, I examine the geometry of spiral arms using a suite of custom software I helped design. I also perform multicomponent decompositional analysis of the galaxies to separate them into their constituent components (i.e., bulge, disk, bar, spiral arms, nucleus, etc.). With this detailed knowledge of the galaxy composition and geometry, I can then construct accurate black hole mass scaling relations that can be used to predict the mass of the central massive black hole in galaxies. By conducting a census of black hole demography in galaxies, future studies can better understand the intimate relationship between central black holes and their host galaxies and garner information about their coevolution.

## Education

2003 - 2008

2008 - 2015 University of Arkansas

Doctoral Degree

Space & Planetary Sciences

Pittsburg State University
Bachelor's Degree
Mathematics & Physics (Minor in Music)

#### **Research Interests**

Science

Education



#### **Professional Skills**

- **Galaxy Evolution**
- Astronomy & Astrophysics
- Galaxy
- Radio Astronomy
- Extragalactic Astronomy
  - Optical Astronomy
- Dark Matter

- Astronomy
- Theoretical Astrophysics
- **Galaxy Formation**



### **Research Experience**

Aug 2008 - May 2015

**Graduate Assistant** 

University of Arkansas



#### Work Experience

Sep 2020

**Research Fellow** 

New York University Abu Dhabi

Aug 2016 - Jul 2020

Postdoctoral Research Fellow

Swinburne University of Technology

Aug 2015 - May 2016

**Visiting Assistant Professor of Physics** 

Arkansas Tech University

Aug 2015 - Dec 2015

**Visiting Assistant Professor of Physics** 

University of Arkansas



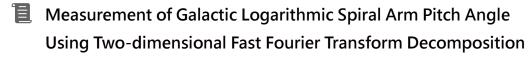
#### **Publication Metrics**

All	Journals	Conference	Books	Others
77	20	1	0	56



#### **All Publications**

#### **Journals**



Benjamin L. Davis, Joel C. Berrier, Douglas W. Shields, Julia Kennefick, Daniel Kennefick, Marc S. Seigar, Marc S. Seigar, Claud H. Sandberg Lacy, Ivânio Puerari

2012 | JOURNAL | Astrophysical Journal Supplement Series

Astrophysics, Physics, Computational physics, Physics

Citation

73/88

Ind. / Total

Further evidence for a supermassive black hole mass-pitch angle relation

Joel C. Berrier, Joel C. Berrier, Joel C. Berrier, Benjamin L. Davis, Daniel Kennefick, Julia Kennefick, Marc S. Seigar, R. S. Barrows, Matthew Hartley, D. W. Shields, Misty C. Bentz, Claud H. Sandberg Lacy

2013 | JOURNAL | The Astrophysical Journal

🚨 Astrophysics, Astronomy, Physics

Citation

64/73

Ind. / Total

Black Hole Mass Scaling Relations for Spiral Galaxies. II. M BH– M\*, tot and M BH–M\*, disk

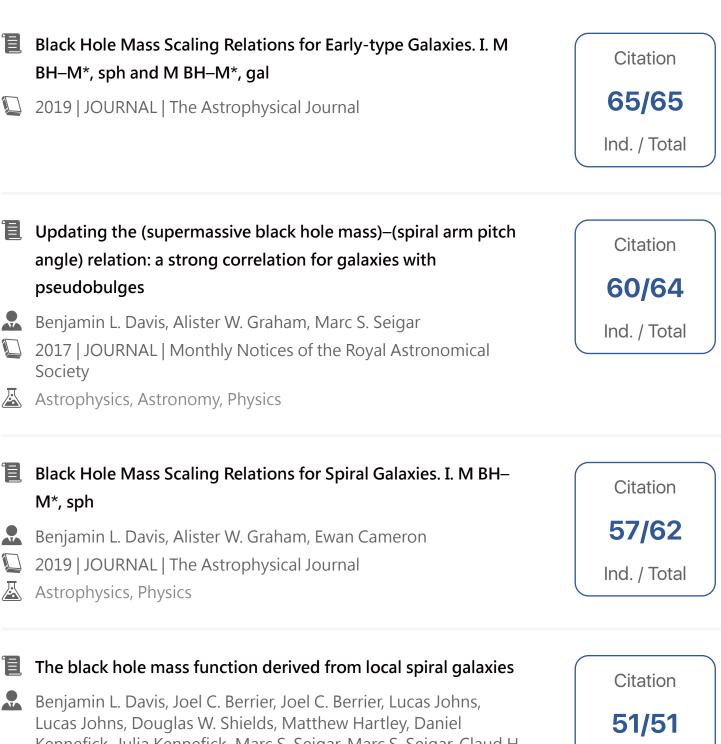
Benjamin L. Davis, Alister W. Graham, Ewan Cameron

2018 | JOURNAL | The Astrophysical Journal

Astrophysics, Physics

Citation

65/69



Benjamin L. Davis, Joel C. Berrier, Joel C. Berrier, Lucas Johns, Kennefick, Julia Kennefick, Marc S. Seigar, Marc S. Seigar, Claud H. Sandberg Lacy

2014 | JOURNAL | The Astrophysical Journal

Astrophysics, Astronomy, Physics

Strong Evidence for the Density-wave Theory of Spiral Structure in Disk Galaxies

Hamed Pour-Imani, Daniel Kennefick, Julia Kennefick, Benjamin L. Davis, Benjamin L. Davis, Douglas W. Shields, Mohamed Shameer Abdeen

2016 | JOURNAL | The Astrophysical Journal

Astrophysics, Astronomy, Physics

Ind. / Total

Citation

45/45



## **l** Revealing Hidden Substructures in the M BH–σ Diagram, and Refining the Bend in the L–σ Relation



Nandini Sahu, Alister W. Graham, Benjamin L. Davis



2019 | JOURNAL | The Astrophysical Journal

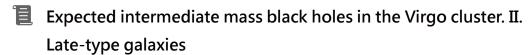


🔼 Astrophysics, Physics

Citation

39/40

Ind. / Total





Alister W. Graham, Roberto Soria, Roberto Soria, Roberto Soria, Benjamin L. Davis



2018 | JOURNAL | Monthly Notices of the Royal Astronomical Society



Astrophysics, Physics

Citation

26/30

Ind. / Total

## THE LOCAL BLACK HOLE MASS FUNCTION DERIVED FROM THE M BH-P AND THE M BH-n RELATIONS



Burcin Mutlu Pakdil, Marc S. Seigar, Benjamin L. Davis



2016 | JOURNAL | The Astrophysical Journal



🔼 Astrophysics, Astronomy, Physics

Citation

29/29

Ind. / Total

## A Fundamental Plane of Spiral Structure in Disk Galaxies



Benjamin L. Davis, Daniel Kennefick, Julia Kennefick, Kyle B. Westfall, Kyle B. Westfall, Douglas W. Shields, Russell Flatman, Matthew Hartley, Matthew Hartley, Joel C. Berrier, Thomas Martinsson, Rob Swaters



2015 | JOURNAL | The Astrophysical Journal



Astrophysics, Astronomy, Physics

Citation

22/27

Ind. / Total

## **Searching for intermediate-mass black holes in galaxies with** low-luminosity AGN: a multiple-method approach



F. Koliopanos, F. Koliopanos, Alister W. Graham, Natalie A. Webb, Natalie A. Webb, Burçin Mutlu-Pakdil, Benjamin L. Davis, O. Godet, O. Godet, Didier Barret, Didier Barret, Marc S. Seigar



2017 | JOURNAL | Astronomy and Astrophysics

Citation

20/20



A Consistent Set of Empirical Scaling Relations for Spiral Galaxies: The (v max, M oM)–( $\sigma$  0, M BH,  $\phi$ ) Relations



Benjamin L. Davis, Alister W. Graham, Francoise Combes



2019 | JOURNAL | The Astrophysical Journal



Astrophysics, Physics

Citation

18/19

Ind. / Total

Constraining dark matter halo profiles and galaxy formation models using spiral arm morphology. II. Dark and stellar mass concentrations for 13 nearby face-on galaxies

Citation

16/18

Ind. / Total

Marc S. Seigar, Marc S. Seigar, Benjamin L. Davis, Joel C. Berrier, Joel C. Berrier, Daniel Kennefick



2014 | JOURNAL | The Astrophysical Journal



Astrophysics, Astronomy, Physics

Investigating the Origins of Spiral Structure in Disk Galaxies through a Multiwavelength Study



Ryan Miller, Daniel Kennefick, Julia Kennefick, Mohamed Shameer Abdeen, Erik B. Monson, Rafael T. Eufrasio, Douglas W. Shields, Benjamin L. Davis



2019 | JOURNAL | The Astrophysical Journal



Astrophysics, Physics

Citation

13/13

Ind. / Total

SPIRALITY: A NOVEL WAY TO MEASURE SPIRAL ARM PITCH **ANGLE** 



Douglas W. Shields, Benjamin Boe, Casey Pfountz, Benjamin L. Davis, Matthew Hartley, Hamed Pour Imani, Zac Slade, Daniel Kennefick, Julia Kennefick

Citation

3/6

Ind. / Total



Astrophysics, Physics

	Spirality: A Novel Way to Measure Spiral Arm Pitch Angle  Douglas W. Shields, Benjamin Boe, Casey Pfountz, Benjamin L.  Davis, Matthew Hartley, Hamed Pour Imani, Zac Slade, Daniel Kennefick, Julia Kennefick  2015   JOURNAL   arXiv: Astrophysics of Galaxies  Astrophysics, Physics	Citation  3/6  Ind. / Total
	Determining the co-rotation radii of spiral galaxies using spiral arm pitch angle measurements at multiple wavelengths  Shameer Abdeen, Daniel Kennefick, Julia Kennefick, Douglas W. Shields, Erik B. Monson, Benjamin L. Davis  2020   JOURNAL   arXiv: Astrophysics of Galaxies  Astrophysics, Physics	Citation 4/4 Ind. / Total
	Strong Evidence for the Density-Wave Theory of Spiral Structure in Disk Galaxies: Pitch Angle Measurements in Different Wavelengths of Light.  2017   JOURNAL   Bulletin of the American Physical Society	Citation  O/O  Ind. / Total
Con	ference	
	Minor Planet Observations [H48 PSU Greenbush Observatory, Pittsburg]  B. Gary, K. Levin  2012   CONFERENCE   Mathematics of Program Construction  Astronomy, Geology, Astrobiology, Geo	Citation  O/O  Ind. / Total

### Others

Defining the (Black Hole)–Spheroid Connection with the Discovery of Morphology-dependent Substructure in the M BH-n sph and M BH-R e, sph Diagrams: New Tests for Advanced ... 2020 | OTHER Spirality: Spiral arm pitch angle measurement Douglas W. Shields, Benjamin Boe, Casey Pfountz, Benjamin L.

Citation

12/12

Ind. / Total

Davis, Matthew Hartley, Hamed Pour Imani, Zac Slade, Daniel Kennefick, Julia Kennefick

Citation

717

Ind. / Total

2015 | OTHER Acoustics, Physics

2DFFT: Measuring Galactic Spiral Arm Pitch Angle

Renjamin L. Davis, Joel C. Berrier, Douglas W. Shields, Julia Kennefick, Daniel Kennefick, Marc S. Seigar, Claud H. Sandberg Lacy, Ivânio Puerari

Citation

6/6

Ind. / Total

2016 | OTHER

Optics, Physics

Reflectance Spectra of Low-Temperature Chloride and Perchlorate Hydrates and their Relevance to the Martian Surface

Citation

5/5

Ind. / Total

J. Hanley, Vincent Chevrier, Benjamin L. Davis, Travis S. Altheide, A. **Francis** 

2009 | OTHER

Inorganic chemistry, Chemistry

Reflectance Spectra of Low-Temperature Chloride and Perchlorate Hydrates and Their Relevance to the Martian Surface

Citation

5/5

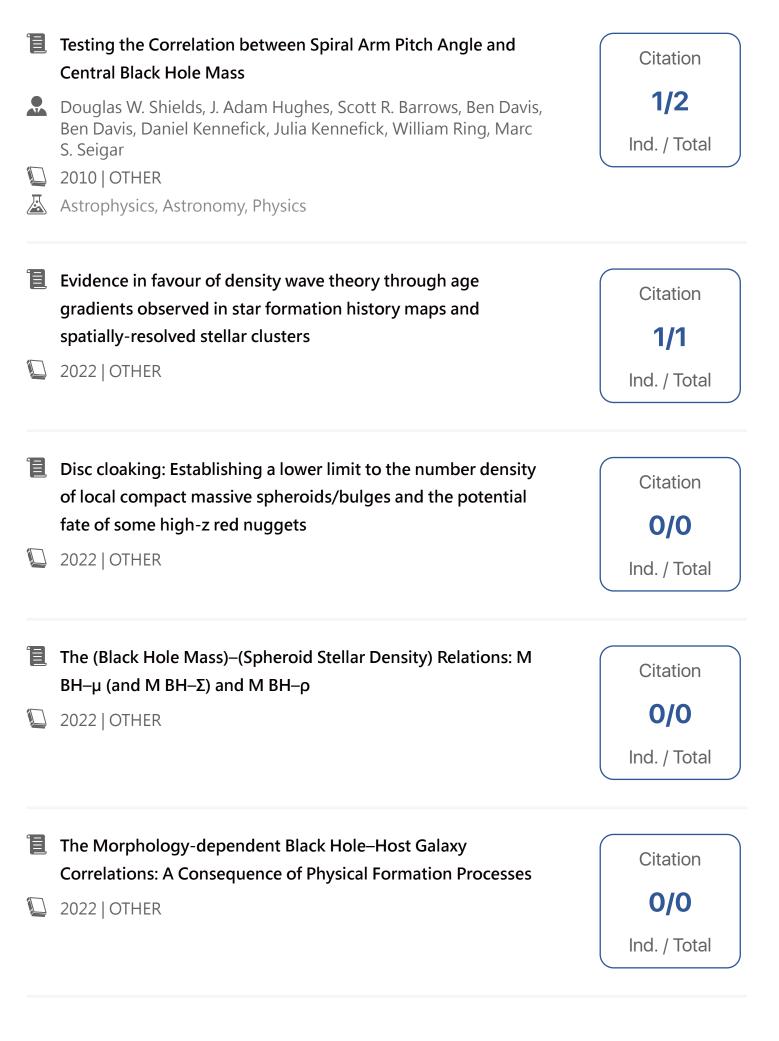
Ind. / Total

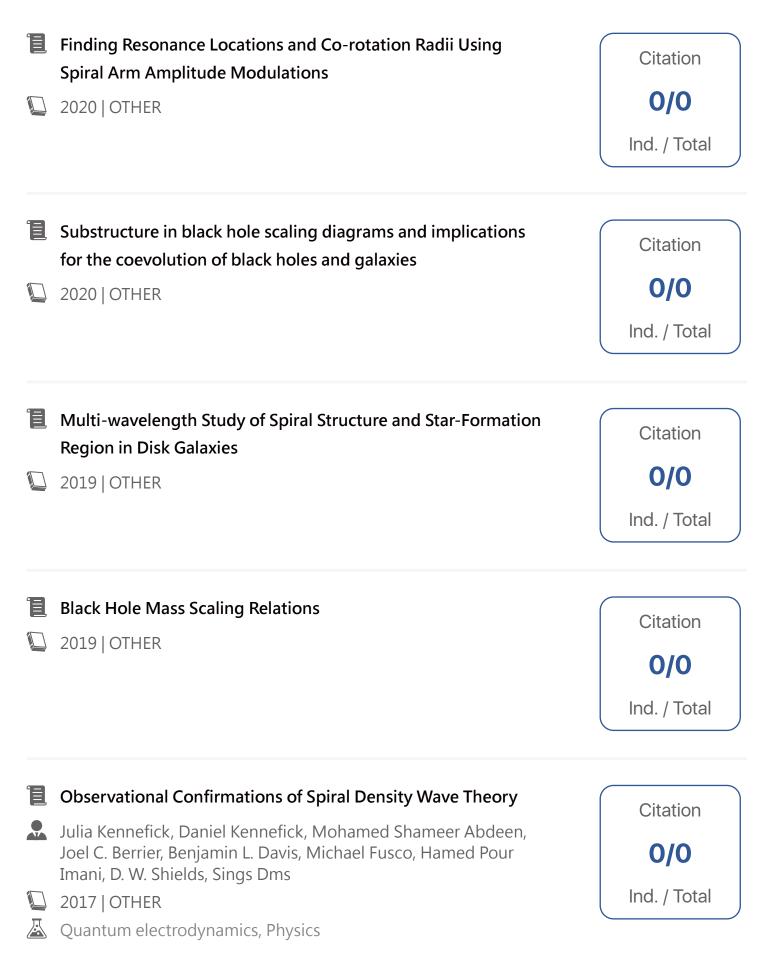
J. Hanley, Vincent Chevrier, Benjamin L. Davis, Travis S. Altheide, A. Francis

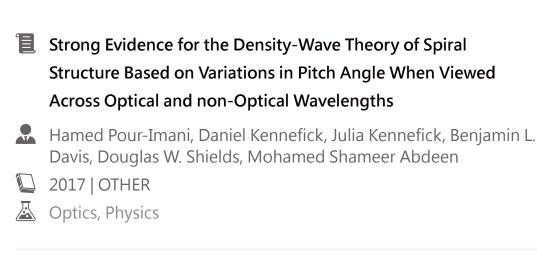
2009 | OTHER

Inorganic chemistry, Chemistry

	Refining the mass estimate for the intermediate-mass black hole candidate in NGC 3319	Citation
	2021   OTHER	4/4
		Ind. / Total
	Potential Black Hole Seeding of the Spiral Galaxy NGC 4424 via	
	an Infalling Star Cluster	Citation
	2021   OTHER	3/3
		Ind. / Total
	Astrophysics with the Laser Interferometer Space Antenna	O''. 1'
	2022   OTHER	Citation
		2/2
		Ind. / Total
1	Central X-Ray Point Sources Found to Be Abundant in Low-	Citation
	mass, Late-type Galaxies Predicted to Contain an Intermediate- mass Black Hole	2/2
	2021   OTHER	
		Ind. / Total
1	A Study of the Relation between the Spiral Arm Pitch Angle and the Kinetic Energy of Random Motions of the Host Spiral	Citation
	Galaxies	2/2
	2014   OTHER	Ind. / Total







O/O

Ind. / Total

Testing SMBH scaling relations using cosmological simulations and optical/near-IR imaging data

Burcin Mutlu Pakdil, Marc S. Seigar, Benjamin L. Davis, P. Treuthardt, Joel C. Berrier

2017 | OTHER

Computational physics, Physics

O/O

Ind. / Total

The Local Black Hole Mass Function Derived from the MBH-Pitch Angle and the MBH-Sersic Index Relations

2016 | OTHER

Citation

0/0

Ind. / Total

Spiral Arm Pitch Angle Measurements of Galaxies in Different Wavelengths of Light to Investigate a Prediction of Density Wave Theory

Hamed Pour Imani, Benjamin L. Davis, Douglas W. Shields, Julia Kennefick, Daniel Kennefick

2015 | OTHER

A Optics, Physics

Citation

0/0

Ind. / Total

Determining the local SMBH mass function using spiral arm pitch angles and Sersic indices

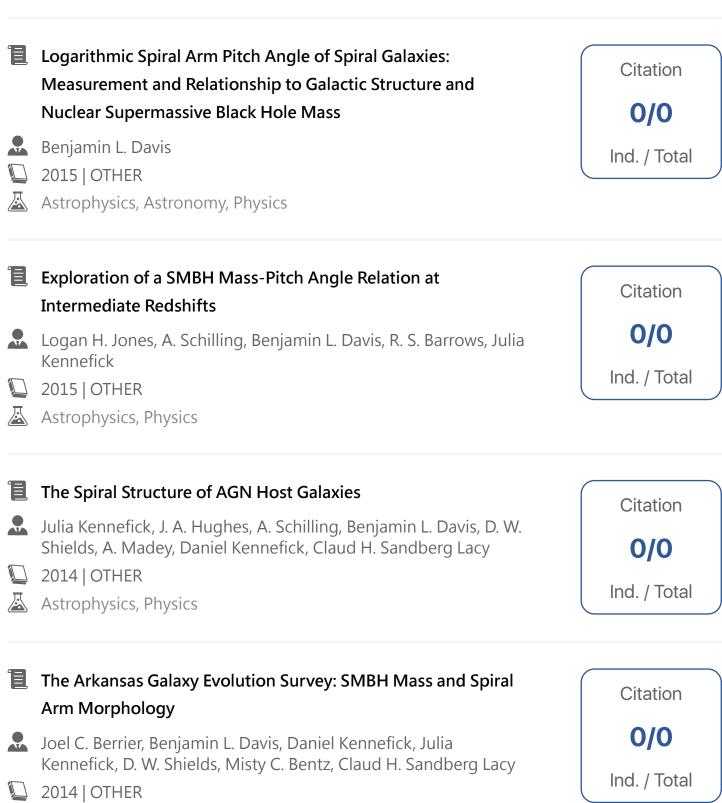
Marc S. Seigar, Burcin Mutlu, Benjamin L. Davis, Joel C. Berrier

2015 | OTHER

Astrophysics, Physics

Citation

0/0



🔼 🛮 Astrophysics, Physics

**Evolution of Spiral Arm Pitch Angle** 

2014 | OTHER

Citation

Ind. / Total

0/0

Mass Distribution & Morphology of Simulated Spiral Galaxies 2014   OTHER	Citation  O/O  Ind. / Total
Constraining dark matter halo profiles using spiral arm morphologies: Dark and stellar mass concentrations for 13 nearby face-on galaxies  2014   OTHER	Citation  O/O  Ind. / Total
A Study of Supermassive Black Holes and the Properties of Their Host Galaxies Marc S. Seigar, P. Treuthardt, Amber D. Sierra, B. N. Davis, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Ismaeel, Marc, Patrick, Amber, Ben, Daniel, Julia, Claud	Citation  O/O  Ind. / Total
2014   OTHER Astrophysics, Physics	
The Supermassive Black Hole Mass-Pitch Angle Relation in Spiral Galaxies  2013   OTHER	O/O Ind. / Total
The Effects of Dark Matter Halo Concentration of the Morphology of Simulated Galaxies  Jazmin Berlanga Medina, Joel C. Berrier, Daniel Kennefick, Benjamin L. Davis, Marc S. Seigar, Julia Kennefick, Claud H. Sandberg Lacy, Ages  2013   OTHER  Astrophysics, Physics	Citation  O/O  Ind. / Total

Evolution of Spiral Arm Pitch Angle and the Masses of Supermassive Black Holes 2013   OTHER	Citation  O/O  Ind. / Total
Logarithmic Spiral Arm Pitch Angle of Late-Type Galaxies: Measurement and Relationship to Galactic Nuclear Supermassive Black Hole Mass Benjamin L. Davis 2013   OTHER Astrophysics, Physics	Citation  O/O  Ind. / Total
Calculating a Galaxies Central Black Hole Mass Using the Sersic Index 2013   OTHER	Citation  O/O  Ind. / Total
The Supermassive Black Hole Mass Function in Spiral Galaxies 2013   OTHER	Citation  O/O  Ind. / Total
The Local Black Hole-Mass Function Derived from Spiral Galaxies  Benjamin L. Davis, Joel C. Berrier, Lucas Johns, D. W. Shields, Daniel Kennefick, Julia Kennefick, Marc S. Seigar, Claud H. Sandberg Lacy  2012   OTHER  Astrophysics, Physics	Citation  O/O  Ind. / Total

# Pitch Angles Of Artificially Redshifted Galaxies Citation Douglas W. Shields, Benjamin L. Davis, Lucas Johns, Joel C. Berrier, 0/0 Daniel Kennefick, Julia Kennefick, Marc S. Seigar 2012 | OTHER Ind. / Total Astrophysics, Physics A Comparison of Four Methods for Measuring Supermassive Citation **Black Hole Masses** 0/0 Ismaeel A. Al-Baidhany, Marc S. Seigar, P. Treuthardt, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Benjamin L. Ind. / Total **Davis** 2012 | OTHER Astrophysics, Physics Supermassive Black Hole Mass and Spiral Galaxy Pitch Angle at Citation Intermediate to High Redshift 0/0 J. A. Hughes, Joel C. Berrier, Benjamin L. Davis, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Marc S. Seigar, D. W. Ind. / Total Shields, K. A. Zoldak 2012 | OTHER Astrophysics, Physics Determining the Local Black Hole Mass Function from the Pitch Citation **Angles of Nearby Spiral Galaxies** 0/0 2012 | OTHER Ind. / Total

**a** A Comparison of Methods for Measuring Supermassive Black Hole Methods

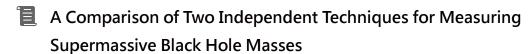
Ismaeel A. Al-Baidhany, Marc S. Seigar, P. Treuthardt, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Benjamin L. Davis

2012 | OTHER

Astrophysics, Physics

Citation

0/0



Ismaeel A. Al-Baidhany, Marc S. Seigar, P. Treuthardt, Benjamin L. Davis, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Misty C. Bentz

Citation

0/0

Ind. / Total

2011 | OTHER



Astrophysics, Astronomy, Physics



#### **Quasar Black Hole Mass**



2010 | OTHER

Citation

0/0

Ind. / Total

Investigating the Clustering and Color of Galaxies in the COMBO-17 Chandra Deep Field South Survey and Possible **Effects on Spiral Arm Pitch Angle** 



Benjamin L. Davis, J. E. Berlanga Medina, D. W. Shields, Julia Kennefick, Daniel Kennefick, Joel C. Berrier, Marc S. Seigar, Claud H. Sandberg Lacy, Ages



2010 | OTHER



Astrophysics, Astronomy, Physics

Citation

0/0

Ind. / Total

The Arkansas Galaxy Evolution Survey: Supermassive Black Holes in the Universe



Marc S. Seigar, Daniel Kennefick, Julia Kennefick, Claud H. Sandberg Lacy, Joel C. Berrier, P. Treuthardt, Ismaeel A. Al-Baidhany, Benjamin L. Davis, J. A. Hughes, A. Schilling, D. W. Shields, Amber D. Sierra

Citation

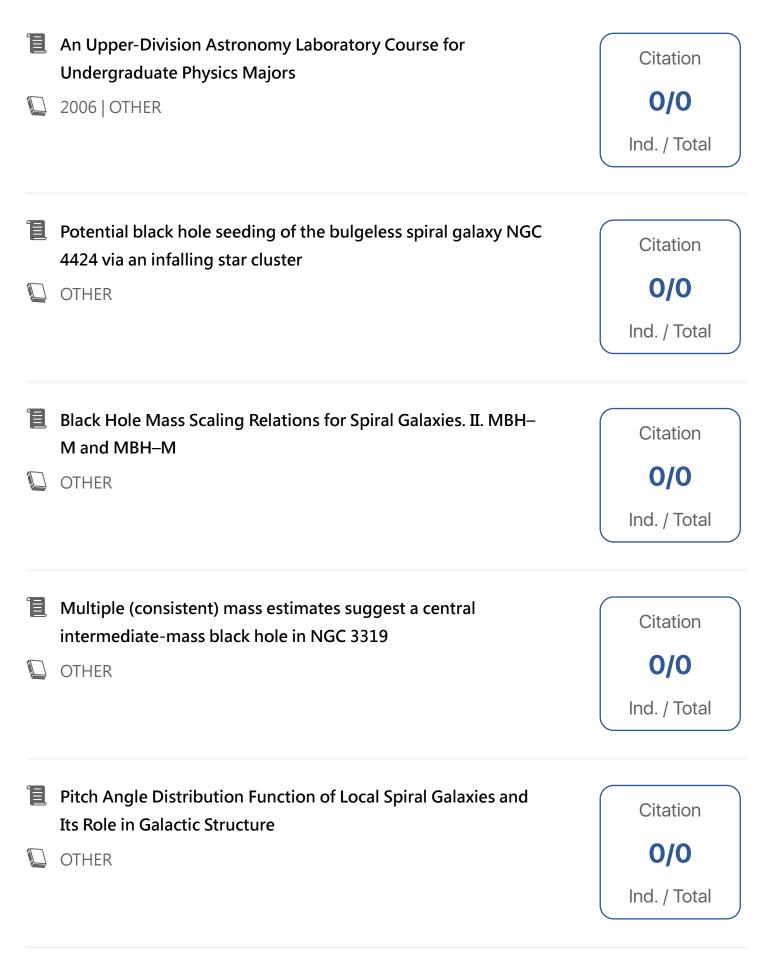
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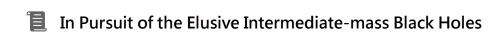
Ind. / Total

2009 | OTHER



Astronomy, Astrophysics, Physics





Citation

0/0

Ind. / Total

Arkansas Natural Heritage Commission; Ouachita National **Forest** 

Citation

0/0

Ind. / Total



OTHER

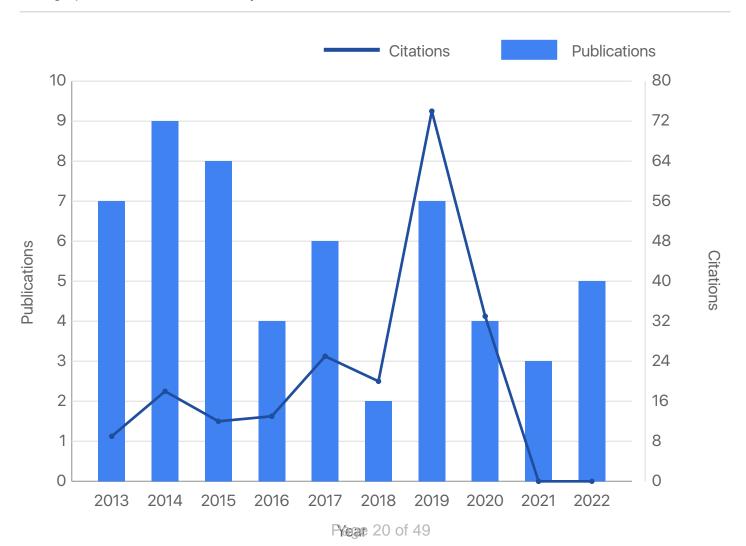
# Metrics and ranks of journals where I published articles

Thomson Reuters ———				
Journal	Impact Factor	Ranks	Papers	Category
Astrophysical Journal Supplement Series	8.561	2/49		Space science
Monthly Notices of the Royal Astronomical Society	5.194	7/49		Space science
Scimago —				
Journal	SJR	Ranks	Papers	Category
Astrophysical Journal Supplement Series	3335	3/111		Astronomy and astrophysics
Astronomy and Astrophysics	2174	9/111		Astronomy and astrophysics
Monthly Notices of the Royal Astronomical Society	1937	14/111		Astronomy and astrophysics
Eigenfactor ————				
Journal	Eigenfactor	Ranks	Papers	Category
Monthly Notices of the Royal Astronomical Society	0.303	2/43		Astronomy and astrophysics

Journal		Eigenfacto	r Ranks	Papers	Category
Astrophysical Journ Supplement Series		0.071	4/43		Astronomy and astrophysics
Google Scholar					
Journal		h5	Ranks	Papers	Category
The Astrophysical J	lournal	167	1/20		Astronomy astrophysics
Monthly Notices of Astropanical Mei	,	146			
Independent	Total		Avg. Citations	G-	-Index
723	780	)	10 Per publi	cation	18 In past 5 years

# îi Citations by Year

This graph shows at most last 10 years.

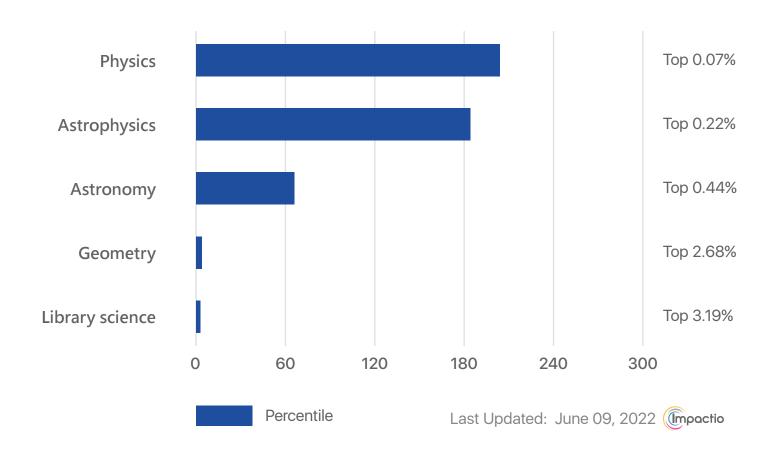


Last Updated: June 09, 2022

# Highly Cited Academic Fields

## **Top 5 Highly Cited Academic Fields**

over the past 5 years



Research Field	Citations	Percentile
Physics	204	Top 0.07%
Astrophysics	184	Top 0.22%
Astronomy	66	Top 0.44%
Geometry	4	Top 2.68%
Library science	3	Top 3.19%

# Citing Country Map

Asia

6.8%

33 / 485

Oceania

5.36%

26 / 485

 North America
 South America
 Africa
 Europe

 45.56%
 1.03%
 0.41%
 40.82%

 221 / 485
 5 / 485
 2 / 485
 198 / 485

1 Last Updated: June 09, 2022 Impoction

Country	Citations	Country	Citations
United States	214	Mexico	4
Russia	13	Spain	18
Germany	31	Brazil	2
South Africa	2	Finland	17
Japan	4	Italy	16
Australia	25	France	8
China	9	Taiwan	6
United Kingdom	70	Greece	4
South Korea	5	Switzerland	2
Israel	6	Canada	3

Country	Citations	Country	Citations
Iraq	1	Portugal	1
Ukraine	3	Netherlands	7
Sweden	4	Austria	2
India	2	Chile	3
New Zealand	1	Ireland	2

## **Global Citation Distribution Map**



- Times of Cited < 5%
- Times of Cited > 5%
- Manually added



## **Citing Institution Ranking**



University of Arkansas



**United States** 

to US NEWS 10 The Top 671 in the world according to US NEWS

The Top 601 in the world according to WORLD UNIVERSITIES



## university of California, Irvine



United States

The Top 219 in the world according to TOP UNIVERSITIES

The Top 78 in the world according to US NEWS

1 The Top 96 in the world according to WORLD UNIVERSITIES



### Max Planck Society



**⇔** Germany

Last Updated: June 09, 2022 (Impactio

Citation

47

Citation

26

Citation

23

	Harvard University	Citation
	United States	16
	The Top 3 in the world according to TOP UNIVERSITIES	
ð0ð	The Top 1 in the world according to US NEWS	
δÕδ	The Top 7 in the world according to WORLD UNIVERSITIES	
盦	University of Alabama	
ॐ	United States	Citation
ٲ۩ؙٞ	The Top 701 in the world according to TOP UNIVERSITIES	14
ΔÔΔ	The Top 419 in the world according to US NEWS	
ŌΟ̈́	The Top 401 in the world according to WORLD UNIVERSITIES	
盦	University of La Laguna	
	Spain	Citation
	The Top 638 in the world according to US NEWS	12
ٲڷؙؙٙ	The Top 601 in the world according to WORLD UNIVERSITIES	
盦	University of Oulu	
ॐ	Finland	Citation
ۂاُٰٰ	The Top 374 in the world according to TOP UNIVERSITIES	12
ٲ۩ؙٞ	The Top 419 in the world according to US NEWS	
ٲڷؙؙٙ	The Top 251 in the world according to WORLD UNIVERSITIES	
盦	INAF	
ॐ	Italy	Citation
		12
•		
	University of Oxford	Citation
The state of the state</td <td>United Kingdom</td> <td>11</td>	United Kingdom	11
	The Top 4 in the world according to TOP UNIVERSITIES	
ðOð	The Top 5 in the world according to US NEWS	
ĎŌ̇̀	The Top 1 in the world according to WORLD UNIVERSITIES	
<u>m</u>	University of Hertfordshire	Citation
	United Kingdom	11
	The Top 751 in the world according to TOP UNIVERSITIES	
ðÕð	The Top 972 in the world according to US NEWS	

Page 26 of 49

	University of Nottingham	Citation
	United Kingdom  The Tare OS in the available accordings to TOP LINIV/FPSITIFS	9
	The Top 96 in the world according to TOP UNIVERSITIES	
	The Top 152 in the world according to US NEWS	
	The Top 152 in the world according to WORLD UNIVERSITIES	
盦	Yale University	Citation
€	United States	Oltation
	The Top 17 in the world according to TOP UNIVERSITIES	9
ðÔð	The Top 12 in the world according to US NEWS	
δÔδ	The Top 8 in the world according to WORLD UNIVERSITIES	
盦	Australian National University	<b>O</b> :: ::
ॐ	Australia	Citation
ٲڷؙٙڷ	The Top 29 in the world according to TOP UNIVERSITIES	8
ΔÔΔ	The Top 69 in the world according to US NEWS	
đÔά	The Top 50 in the world according to WORLD UNIVERSITIES	
â	Adler Planetarium	
ॐ	United States	Citation
		8
_		
	University of Portsmouth	Citation
	United Kingdom	8
	The Top 601 in the world according to TOP UNIVERSITIES	
	The Top 557 in the world according to US NEWS	
ÖUÖ	The Top 401 in the world according to WORLD UNIVERSITIES	
Ê	Russian Academy of Sciences	Citation
ॐ	Russia	- Citation
<u>.</u>		
	University of Hawaii	Citation
	University of Hawaii United States	Citation <b>7</b>

	Saint Petersburg State University	Citation
	Russia The Top 234 in the world according to TOP UNIVERSITIES	6
. *	The Top 539 in the world according to US NEWS	
	The Top 601 in the world according to WORLD UNIVERSITIES	
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蘁	Carnegie Learning	Citation
		6
<u></u>	Swinburne University of Technology	Citation
	Australia	
	The Top 383 in the world according to TOP UNIVERSITIES	6
	The Top 358 in the world according to US NEWS	
ÔUŎ	The Top 351 in the world according to WORLD UNIVERSITIES	
<u>m</u>	Hebrew University of Jerusalem	Citation
*	Israel	6
	The Top 162 in the world according to TOP UNIVERSITIES	
*	The Top 222 in the world according to US NEWS	
	The Top 201 in the world according to WORLD UNIVERSITIES	
	Space Telescope Science Institute	Citation
ॐ	United States	6
<u></u>	University of Southampton	O:+ ·:
ॐ	United Kingdom	Citation
ÔΟ̈́	The Top 97 in the world according to TOP UNIVERSITIES	6
ðÔð	The Top 94 in the world according to US NEWS	
ðÔð	The Top 122 in the world according to WORLD UNIVERSITIES	
<u></u>	North Carolina Museum of Natural Sciences	Citation
ॐ	United States	_
		5

	Academia Sinica Institute of Astronomy and Astrophysics	Citation
₩	Taiwan	5
Ê	California Institute of Technology	Citation
	United States	
ÔΟ̈́	The Top 5 in the world according to TOP UNIVERSITIES	5
ΔÔΔ	The Top 6 in the world according to US NEWS	
δÔδ	The Top 2 in the world according to WORLD UNIVERSITIES	
盦	Subaru	
	The Top 479 in the world according to FORBES	Citation
		5
	Johns Hopkins University	Citation
	United States	5
åOå ∴∗	The Top 24 in the world according to TOP UNIVERSITIES	5
δÖδ	The Top 11 in the world according to US NEWS	
ÓΩ̈́	The Top 12 in the world according to WORLD UNIVERSITIES	
â	Middlebury College	0:4-4:
ॐ	United States	Citation
		5
_		
壨	National Autonomous University of Mexico	Citation
Ö İİİ	Mexico The Top 382 in the world according to US NEWS	4
<u>. *</u> .		
ĎÖδ	The Top 601 in the world according to WORLD UNIVERSITIES	
	Georgia Institute of Technology	Citation
	United States	4
	The Top 72 in the world according to TOP UNIVERSITIES	
ŌΟŏ	The Top 62 in the world according to US NEWS	

The Top 38 in the world according to WORLD UNIVERSITIES

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	University College London United Kingdom The Top 21 in the world according to US NEWS	Citation 3
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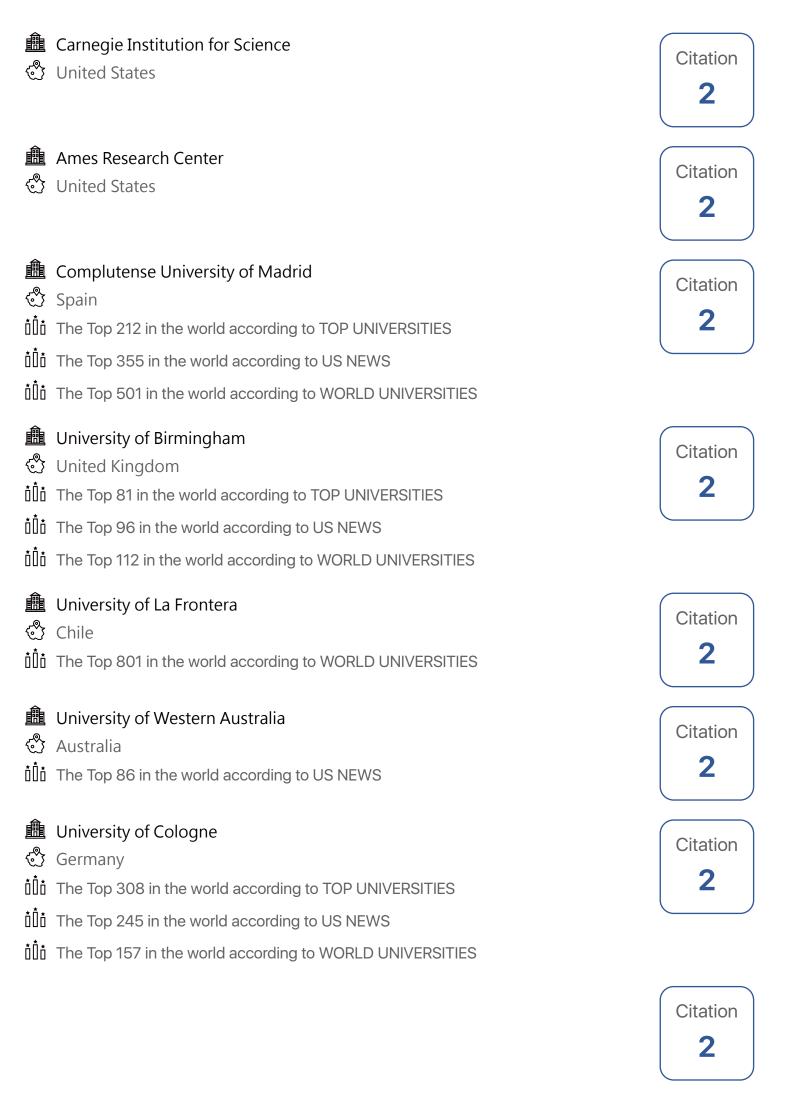
The Top 67 in the world according to WORLD UNIVERSITIES

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ÔÔÔ	The Top 168 in the world according to US NEWS	
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Ê	University of Washington	Citation
ॐ	United States	Citation
δÔδ	The Top 68 in the world according to TOP UNIVERSITIES	3
ΔÔΔ	The Top 10 in the world according to US NEWS	
ÔΟ̈́	The Top 26 in the world according to WORLD UNIVERSITIES	
盦	University of Cambridge	
ॐ	United Kingdom	Citation
ŌΟ̈́	The Top 7 in the world according to TOP UNIVERSITIES	3
ٲڷؙؙٙ ٲ	The Top 9 in the world according to US NEWS	
ĎĎĎ	The Top 3 in the world according to WORLD UNIVERSITIES	
盦	University of São Paulo	
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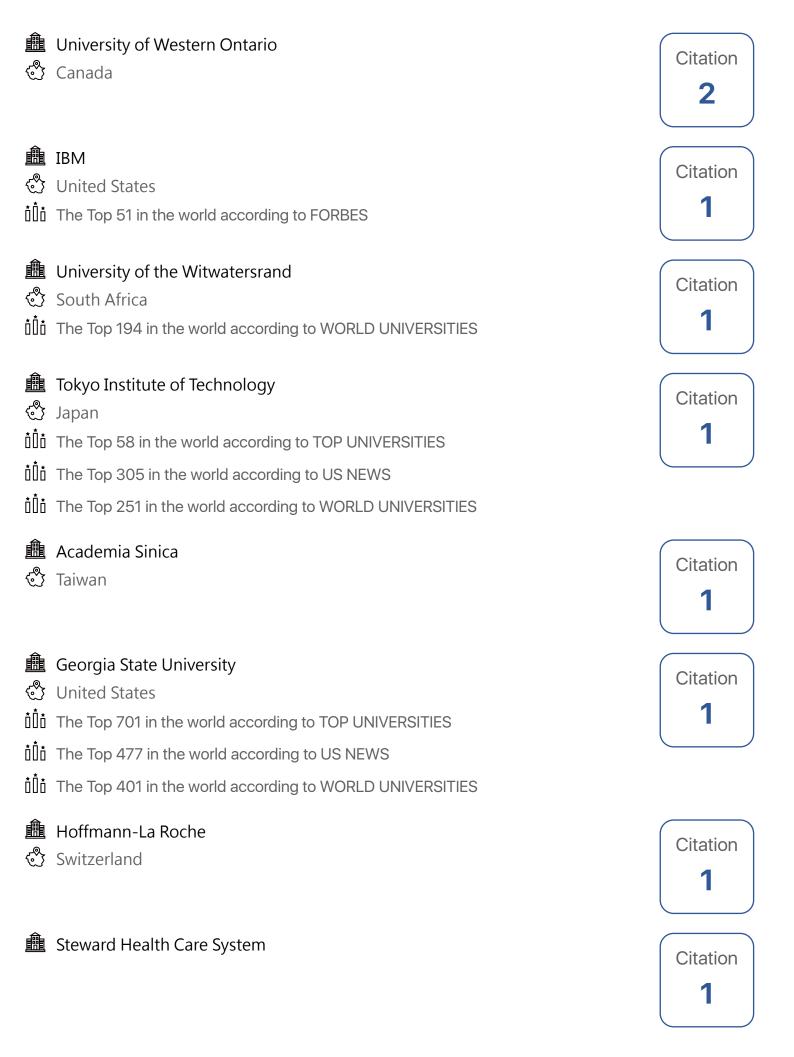
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Ê	University of Leicester	0:1.1:
ॐ	United Kingdom	Citation
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ΔÔΔ	The Top 235 in the world according to US NEWS	
ΔÔΔ	The Top 166 in the world according to WORLD UNIVERSITIES	
盦	University of Minnesota	
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•	The Top 79 in the world according to WORLD UNIVERSITIES	2
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盦	University of Melbourne	Citation
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	The Top 26 in the world according to US NEWS	
ðΟð	The Top 32 in the world according to WORLD UNIVERSITIES	
盦	University of Vienna	Citation
ॐ	Austria	Citation
ðÔð	The Top 154 in the world according to TOP UNIVERSITIES	2
ðÔð	The Top 200 in the world according to US NEWS	
ðÔð	The Top 134 in the world according to WORLD UNIVERSITIES	
â	University of California, Berkeley	
	United States	Citation
ðĎð	The Top 28 in the world according to TOP UNIVERSITIES	2
ΔĎΔ	The Top 4 in the world according to US NEWS	
ΔĎΔ	The Top 13 in the world according to WORLD UNIVERSITIES	
盦	University of California, Santa Cruz	
_	United States	Citation
	The Top 367 in the world according to TOP UNIVERSITIES	2
ΔĎΔ	The Top 76 in the world according to US NEWS	
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盦	Institut d'Astrophysique de Paris	
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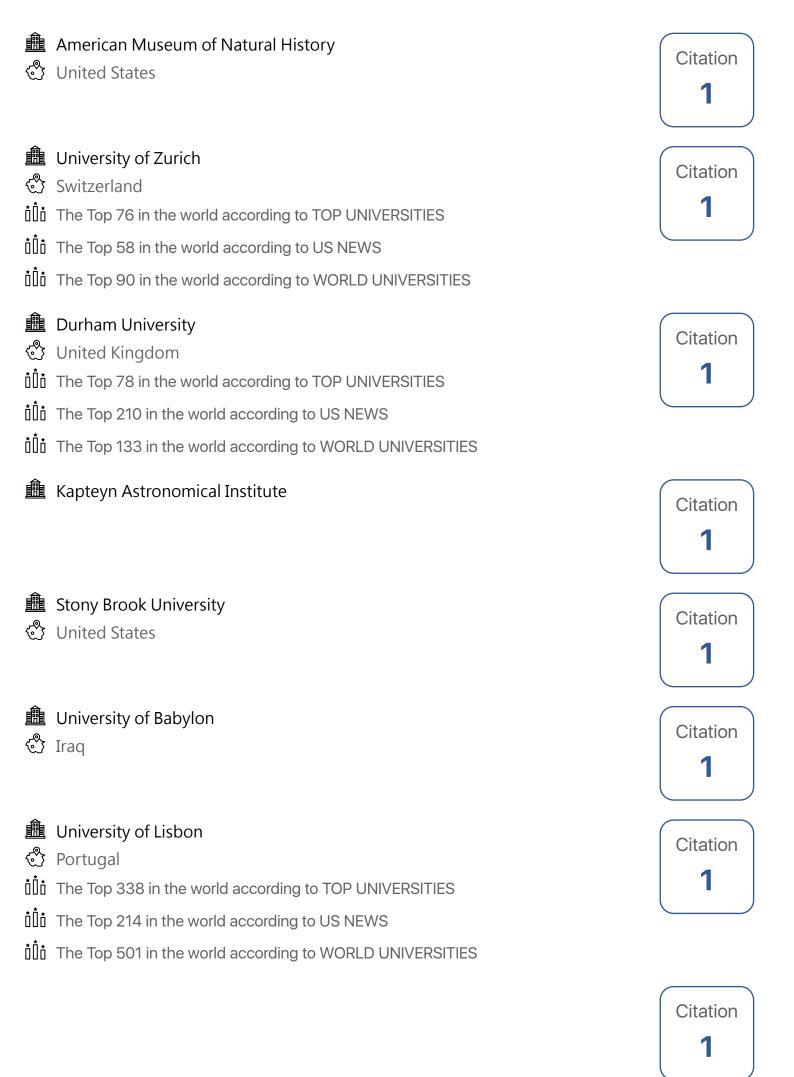


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ðÔð	Cornell University United States The Top 14 in the world according to TOP UNIVERSITIES The Top 23 in the world according to US NEWS The Top 19 in the world according to WORLD UNIVERSITIES	Citation 2
	Jet Propulsion Laboratory United States	Citation 2
	United States Geological Survey United States	Citation 2
	University of Paris-Sud France	Citation 2



	University of Alberta Canada	Citation
*	The Top 113 in the world according to TOP UNIVERSITIES	1
	The Top 139 in the world according to US NEWS	
ðÔō	The Top 136 in the world according to WORLD UNIVERSITIES	
盦	Institute for the Physics and Mathematics of the Universe	0:4-4:
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â	Tohoku University	
ॐ	Japan	Citation
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盦	Kyoto University	Citation
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The Top 65 in the world according to WORLD UNIVERSITIES



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盦	Shanghai Normal University	Citation
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	University of Calicut	Citation
∜	India	1
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盦	University of Utah	
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â	Institution of Engineers, Sri Lanka	Citation

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ΔÔΔ	The Top 6 in the world according to WORLD UNIVERSITIES	
ĎĎĎ	University of Maryland, College Park The Top 136 in the world according to TOP UNIVERSITIES The Top 51 in the world according to US NEWS The Top 91 in the world according to WORLD UNIVERSITIES	Citation 1
ĎĎĎ	University of Hong Kong China The Top 25 in the world according to TOP UNIVERSITIES The Top 100 in the world according to US NEWS The Top 35 in the world according to WORLD UNIVERSITIES	Citation 1
	Indian Institute of Astrophysics India	Citation 1
ĎĎĎ	Peking University China The Top 22 in the world according to TOP UNIVERSITIES The Top 59 in the world according to US NEWS The Top 24 in the world according to WORLD UNIVERSITIES	Citation 1
	International School for Advanced Studies Italy The Top 164 in the world according to US NEWS	Citation 1

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ॐ	Australia	Citation
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	The Top 64 in the world according to US NEWS  University of the Western Cape  South Africa  The Top 801 in the world according to TOP UNIVERSITIES	Citation 1
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	The Top 64 in the world according to US NEWS  University of the Western Cape South Africa The Top 801 in the world according to TOP UNIVERSITIES The Top 722 in the world according to US NEWS The Top 601 in the world according to WORLD UNIVERSITIES	Citation 1
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ðÔð T	he Top 185 in the world according to TOP UNIVERSITIES	1
ðÔð T	he Top 227 in the world according to US NEWS	
ÖÖÖ T	he Top 201 in the world according to WORLD UNIVERSITIES	
盦 St	ternberg Astronomical Institute	Citation
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<u></u> St	tockholm University	Citation
S S	weden	Citation

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10 The Top 175 in the world according to WORLD UNIVERSITIES

The Top 114 in the world according to US NEWS

	Queen's University Belfast	Citation
*	United Kingdom	1
	The Top 173 in the world according to TOP UNIVERSITIES	
ÔÔŏ	The Top 322 in the world according to US NEWS	
ðĎð	The Top 201 in the world according to WORLD UNIVERSITIES	
â	Trinity College, Dublin	
_	Ireland	Citation
ۂ أُ	The Top 108 in the world according to TOP UNIVERSITIES	1
ðÔð	The Top 240 in the world according to US NEWS	
	The Top 164 in the world according to WORLD UNIVERSITIES	
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	University of Amsterdam	Citation
	Netherlands The Tap 64 in the world experding to TOP LINIV/EDS/TIES	1 1
. * .	The Top 64 in the world according to TOP UNIVERSITIES	
. *	The Top 40 in the world according to US NEWS	
ÔÔδ	The Top 62 in the world according to WORLD UNIVERSITIES	
盦	Curtin University	Citation
	Curtin University Australia	Citation
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	Australia	Citation 1
	Australia  Massachusetts Institute of Technology	Citation 1 Citation
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	Australia  Massachusetts Institute of Technology United States The Top 1 in the world according to TOP UNIVERSITIES The Top 2 in the world according to US NEWS	1
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	Australia  Massachusetts Institute of Technology United States The Top 1 in the world according to TOP UNIVERSITIES The Top 2 in the world according to US NEWS	Citation 1
	Australia  Massachusetts Institute of Technology United States The Top 1 in the world according to TOP UNIVERSITIES The Top 2 in the world according to US NEWS The Top 5 in the world according to WORLD UNIVERSITIES	1
	Australia  Massachusetts Institute of Technology United States The Top 1 in the world according to TOP UNIVERSITIES The Top 2 in the world according to US NEWS The Top 5 in the world according to WORLD UNIVERSITIES University of Manchester	Citation 1
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university of Virginia

**United States** 

The Top 198 in the world according to TOP UNIVERSITIES

The Top 107 in the world according to US NEWS



notifical Catholic University of Chile



🖏 Chile

Citation

Citation



### Metrics and ranks of journals which cited my publications

Thomson Reuters ————			
Journal	Impact Factor	Ranks	Year
Astrophysical Journal Supplement Series	8.561	2/49	2012
Monthly Notices of the Royal Astronomical Society	5.194	7/49	2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
Journal of Cosmology and Astroparticle Physics	5.126	8/49	2017
Publications of the Astronomical Society of Australia	4.63	9/49	2019
Earth and Planetary Science Letters	4.581	13/369	2018
Physical Review D	4.394	14/282	2017, 2019
Icarus	2.981	16/49	2010
International Journal of Modern Physics D	2.171	21/49	2017
Astrophysics and Space Science	1.885	26/49	2019
New Astronomy	0.92	37/49	2014
Astrophysics	0.755	41/49	2019
American Mineralogist	2.645	102/369	2014
Nature Astronomy	Not Available	-	2020
Physics of the Dark Universe	6.509		2020

## Scimago

Journal	SJR	Ranks	Year
Astrophysical Journal Supplement Series	3335	3/111	2012
Nature Astronomy	2505	6/73	2020
Astronomy and Astrophysics	2174	9/111	2015, 2017, 2019, 2020
Earth and Planetary Science Letters	2942	11/534	2018
Monthly Notices of the Royal Astronomical Society: Letters	1964	13/111	2020
Monthly Notices of the Royal Astronomical Society	1937	14/111	2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
Publications of the Astronomical Society of Australia	1933	15/111	2019
Icarus	1837	16/111	2010
American Mineralogist	1573	20/190	2014
Physics of the Dark Universe	1459	22/111	2020
Physical Review D	1664	25/262	2017, 2019
Journal of Cosmology and Astroparticle Physics	813	28/73	2017
Astrophysics	306	54/73	2019
International Journal of Modern Physics D	751	64/168	2017
Astrophysics and Space Science	458	69/111	2019
Journal of Geophysical Research	1734	108/1683	2011
New Astronomy	441	123/225	2014

# Eigenfactor

Journal	Eigenfactor	Ranks	Year
Monthly Notices of the Royal Astronomical Society	0.303	2/43	2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
Journal of Cosmology and Astroparticle Physics	0.061	4/60	2017

Journal	Eigenfactor	Ranks	Year
Astrophysical Journal Supplement Series	0.071	4/43	2012
Astrophysics and Space Science	0.013	10/43	2019
Publications of the Astronomical Society of Australia	0.004	18/43	2019
New Astronomy	0.003	21/43	2014
International Journal of Modern Physics D	0.007	25/60	2017
Astrophysics	< 0.001	32/43	2019
Physical Review D	0.266		2017, 2019
Physics of the Dark Universe	0.002		2020
Earth and Planetary Science Letters	0.099		2018
Icarus	0.044		2010
American Mineralogist	0.014		2014
Journal of Geophysical Research	0.305		2011

# Google Scholar

Journal	h5	Ranks	Year
The Astrophysical Journal	167	1/20	2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
Journal of Geophysical Research	80	3/20	2011
Journal of Cosmology and Astroparticle Physics	86	4/20	2017
Earth and Planetary Science Letters	67	4/20	2018
The Astronomical Journal	76	6/20	2014
American Mineralogist	39	7/20	2014
Icarus	54	9/20	2010
Nature Astronomy	50	10/20	2020
International Journal of Modern Physics D	39	14/20	2017
Publications of the Astronomical Society of Australia	38	17/20	2019

Journal	h5	Ranks	Year
Astrophysics and Space Science	35	18/20	2019
Monthly Notices of the Royal Astronomical Society	146		2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
Physical Review D	148		2017, 2019