

इसरो अनुसंधान के प्रमुख झलकियाँ ISRO RESEARCH HIGHLIGHTS

*A Bi-Monthly Analysis of Journal Articles
Published by DOS/ISRO Centres/Units indexed
in Scopus and Web of Science Databases*

अंक | Issue-3
मई-जून | May-June 2026

पुस्तकालय एवं सूचना संसाधन प्रभाग
Library and Information Resource Division
इसरो मुख्यालय | ISRO Headquarters

इसरो अनुसंधान के प्रमुख झलकियाँ | ISRO RESEARCH HIGHLIGHTS

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EXECUTIVE SUMMARY

SOURCES OF DATA: Scopus and Web of Science Databases

286 Total Articles	191 Unique Journals	15 Centres/Units	11.63 Avg. Authors/Article	95 Gold & Hybrid OA Articles	65 Intl. Collab. Countries
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KEY FINDINGS	RESEARCH DOMAINS			CROSS-CUTTING THEMES		
01 Astronomy & Astrophysics leads with 47 articles (16.4%), closely followed by Atmospheric & Climate Science (47, 16.4%). 02 PRL leads with 78 articles (27.3%); IIST (49), VSSC (35), SAC (34). 15 centres active. 03 Modelling/Simulation is the top theme (129, 45.1%), followed by Indian Subcontinent Focus (96, 33.6%) and Validation/Ground Truth (66, 23.1%). 04 AI/ML Methods applied in 36 articles (12.6%) – CNNs, LSTMs, random forests, deep learning – a fast-growing signal across remote sensing, materials, and physics. 05 Mega-consortia inflate avg. to 11.63 authors/article; 3 articles with 50+ authors, 1 exceeding 1,300 co-authors (DUNE, PRL). Effective avg. excl. outliers ~5.5. 06 International collaboration in 70 articles (24.5%). 65 partner countries; USA (30), Japan (14), United Kingdom (14) top 3. 07 37 articles (12.9%) claim novelty – 'novel' (30), 'for the first time' (6), 'unprecedented' (1). Lexical signal, not editorial assessment. 08 Open access: 95/286 (33.2%) openly accessible – Gold 75, Hybrid 13, Green 6. 09 191 unique journals across 14 subject domains; 149 (78.0%) contribute only 1 article. 40 publisher groups. 10 Novelty claims: 37 (12.9%). Mission coverage: 19 articles (6.6%) across 8 platforms. 1,317 keyword instances, 1,221 unique terms.	Research Domain	No.	%	Cross-Cutting Theme	No.	%
	Astronomy & Astrophysics	47	16.4%	Modelling / Simulation	129	45.10%
	Atmospheric & Climate Science	47	16.4%	Indian Subcontinent Focus	96	33.57%
	Remote Sensing & Earth Observation	30	10.5%	Validation / Ground Truth	66	23.08%
	Materials Science & Engineering	25	8.7%	Satellite / RS Data Used	58	20.28%
	Computer Science & AI	17	5.9%	Experimental / Lab Work	57	19.93%
	TOP PUBLISHING CENTRES			PUBLISHER LANDSCAPE		
	Top ISRO Centres		No.	Publisher Group		No.
	PRL		78	Springer Nature		78
	IIST		49	Elsevier		67
VSSC		35	American Astronomical Society		18	
SAC		34	Taylor & Francis		16	
NRSC		21	Wiley		13	
AUTHOR KEYWORDS			IOP Publishing			12
Keyword		No.	Oxford University Press			11
Remote sensing		8	AUTHORS			
Machine learning		7	Author		No.	
Aerosols		4	Venkat Ratnam M		8	
Photometric		3	Ravi Ranjan Kumar		7	
Spectroscopic		3	Rohit Kumar Gupta		7	
Lidar		3	Murty, S. V. S. N.		6	
OPEN ACCESS BREAKDOWN			Mehul R Pandya		5	
OA Type		No.	MISSION COVERAGE			
Closed / Paywalled		191	Mission / Platform		No.	
Gold Open Access		75	Oceansat / OCM		4	
Hybrid Gold OA		13	Aditya-L1 / ASPEX		4	
Green OA (only)		6	INSAT / GISAT		4	
Bronze OA		1	EOS-04 / 06 / 08		4	
AUTHORSHIP			AstroSat		3	
Authorship		Articles	Chandrayaan-2 & -3		2	
Single author (1)		8	NavIC / IRNSS		2	
2 authors		32				
3-4 authors		106				
5-9 authors		112				
>=10 authors		28				

1. Data Collection

286 Unique Articles	191 Unique Journals	15 Centres / Units	11.63 Avg. Authors / Article	95 Gold & Hybrid OA Articles	285 Articles with DOI	65 Intl. Collab. countries
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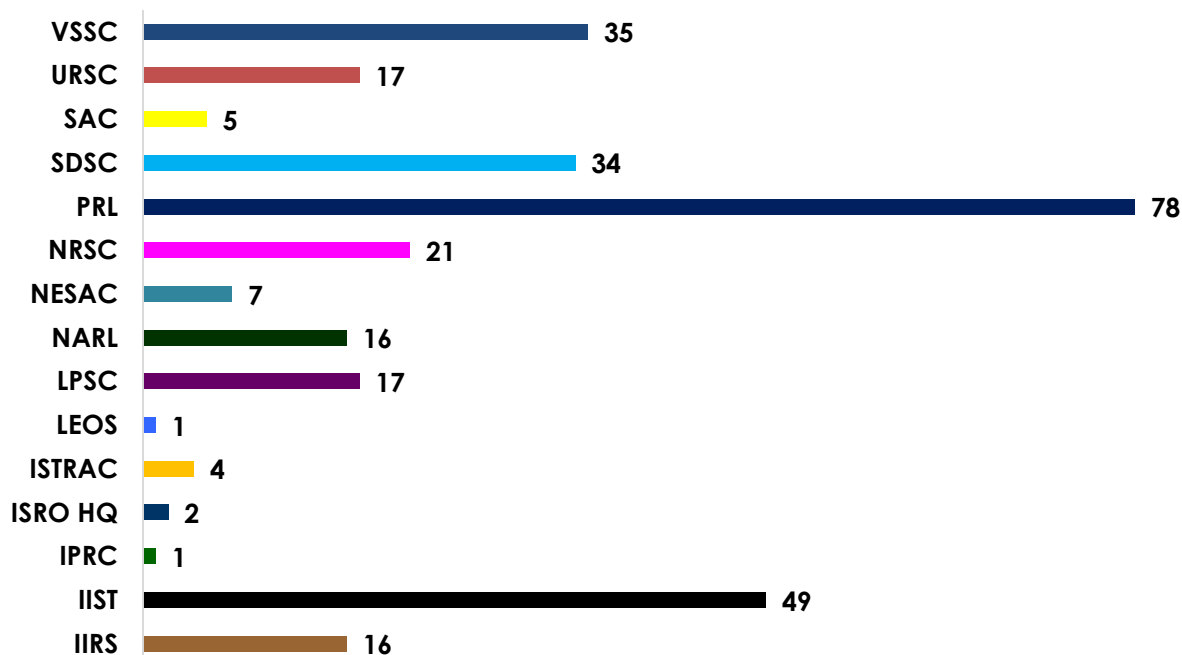
The dataset comprises 303 journal articles published in the form of article, letter, note and review by DOS/ISRO-affiliated researchers for **May–June 2026 issue**. The data is extracted from **Scopus and Web of Science databases** on 17th July 2026 for the journal articles indexed in these two databases during the period **16th May 2026 to 17th July 2026**.

2. ISRO Affiliation Analysis

	Centre / Unit	Articles Jan-Feb 329	Articles Mar-Apr 349	Articles Mar-Apr 303	% of 306
1	ADRIN	-	2	-	-
2	HSFC	1	1	-	-
3	IIRS	32	27	16	5.28
4	IIST	68	63	49	16.17
5	IPRC	5	1	1	0.33
6	ISRO HQ	5	3	2	0.66
7	ISTRAC	3	3	4	1.32
8	LEOS	-	2	1	5.56
9	LPSC	11	8	17	5.61
10	MCF	1	-	-	-
11	NARL	17	10	16	5.28
12	NESAC	10	9	7	2.31
13	NRSC (including RRSCs)	30	32	21	6.93
14	PRL	88	105	78	25.74
15	SAC	45	45	34	11.22
16	SDSC	-	3	5	1.65
17	URSC	9	17	17	5.61
18	VSSC/SPL/IISU	43	52	35	11.55
	TOTAL ATTRIBUTIONS	367	383	303	

A total of 303 attributions are recorded across 15 DOS/ISRO Centres/Units for 286 articles, giving an average of 1.06 attributions per article, with 11 articles having two Centres, 2 articles having three Centres and one article having four Centres. PRL contributed 78 articles (25.74%), followed by IIST (49, 16.17%), VSSC/SPL/IISU (35, 11.55%), SAC (34, 11.22%), and NRSC (21, 6.93%). Together these five Centres account for 71.61% of all attributions.

Centre-Wise Article Attribution

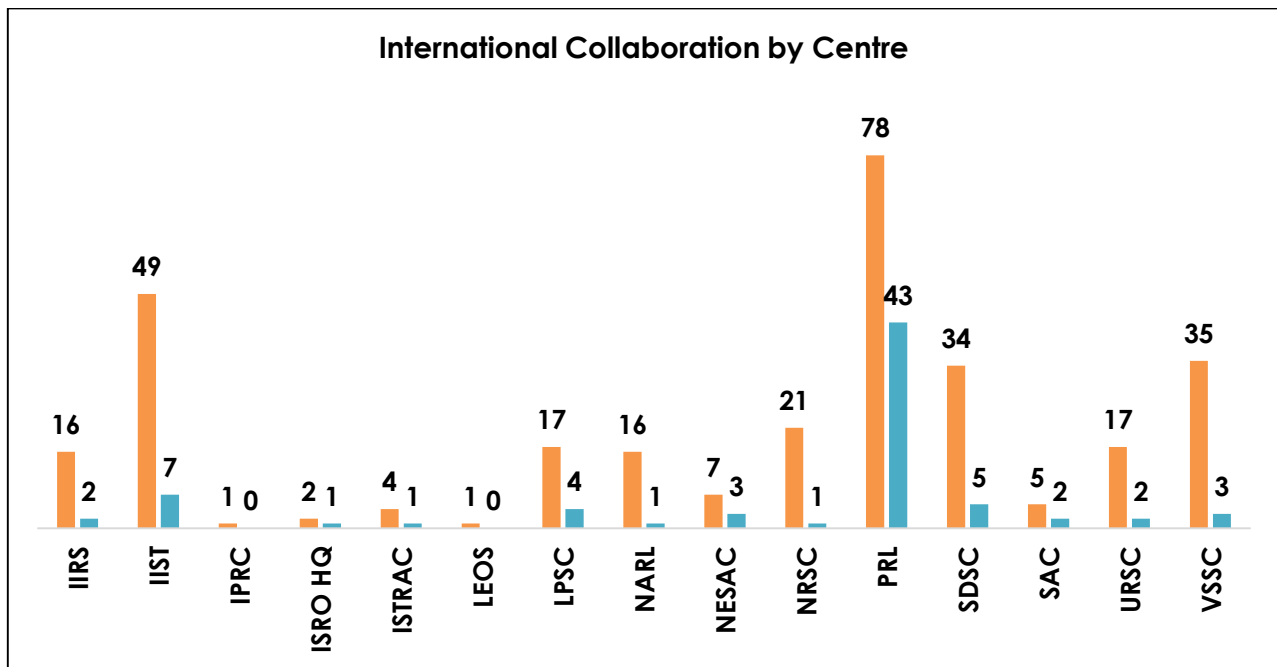


3. International Collaboration – Articles Count

	Centre / Unit	Total Articles	Intl. Collab.	% of Total Articles
1	IIRS	16	2	12.50
2	IIST	49	7	14.29
3	IPRC	1	-	-
4	ISRO HQ	2	1	50.00
5	ISTRAC	4	1	25.00
6	LEOS	1	-	-
7	LPSC	17	4	23.53
8	NARL	16	1	6.25
9	NESAC	7	3	42.86
10	NRSC (including RRSCs)	21	1	4.76
11	PRL	78	43	55.13
12	SAC	34	5	14.71
13	SDSC	5	2	40.00
14	URSC	17	2	11.76
15	VSSC/SPL/IISU	35	3	8.57
	TOTAL ATTRIBUTIONS	303	75	24.75

Of the 286 articles, 75 unique articles (24.75%) involve at least one internationally co-affiliated author, identified via non-Indian country strings in the Affiliations. Among Centres/Units with

international co-authorship. PRL shows the highest international-collaboration rate, reflecting its role in large multi-national astrophysics consortia.



4. International Collaboration – Partner Countries

Collaboration is identified with 65 countries. The United States leads at 30 co-occurring articles, followed by Japan and United Kingdom with 14 articles each, Germany (13), Italy (10), China and Spain with 8 articles each and Canada and Russian with 7 articles each.

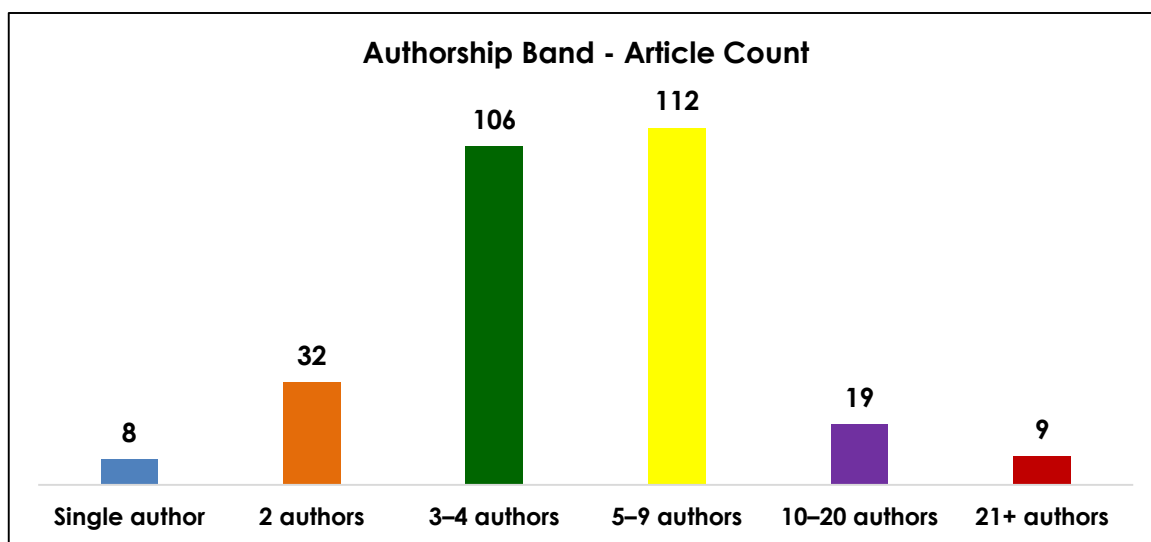
Country	No. of Articles
USA	30
Japan	14
United Kingdom	14
Germany	13
Italy	10
China	8
Spain	8
Canada	7
Russia	7



5. Author & Authorship Analysis - Distribution

Authorship	Articles	% of Total
Single author (1)	8	2.80
2 authors	32	11.19
3–4 authors	106	37.06
5–9 authors	112	39.16
10–20 authors	19	6.64
21+ authors	9	3.15
TOTAL	286	100.0%

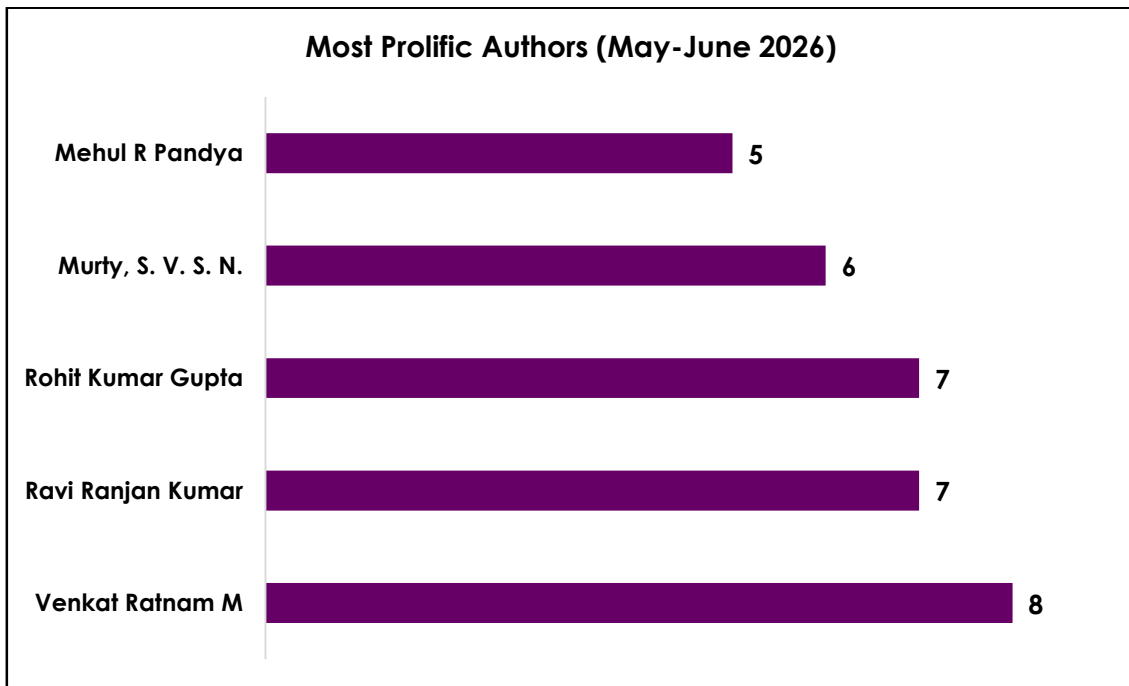
The 286 articles carry a total of 3,326 author-name instances, yielding an average of 11.63 authors per article. The average is heavily inflated by 3 mega-consortium articles (≥ 50 authors), including a 1,327-author particle-physics collaboration paper. Excluding these outliers, the effective average drops to 5.51 authors per article ($n=283$). The dominant band is 5-9 authors (112 articles, 39.16%); single-author articles remain rate (8, 2.80%).



6. Author & Authorship Analysis – Most Articles

	Author Name	No. of Articles
01	Venkat Ratnam, M. / National Atmospheric Research Laboratory	8
02	Ravi Ranjan Kumar / Liquid Propulsion Systems Centre	7
03	Rohit Kumar Gupta / Liquid Propulsion Systems Centre	7
04	Murty, S. V. S. N. / Liquid Propulsion Systems Centre	6
05	Mehul R Pandya / Space Applications Centre	5

Among 286 articles, six authors each appear in 4 or more articles. Venkat Ratnam M (NARL) leads with 8 articles. Two authors are tied at 7 articles each: Ravi Ranjan Verma (LPSC) and Rohit Kumar Gupta (LPSC). Murty, S V S N (LPSC) contributed 6 articles and Mehul R Pandya 5 articles.



7. Journal Landscape

191 Unique Journals	149 Journals with only 1 article	23 Journals with 2 articles	19 Journals with 3+ articles	40 Publishers
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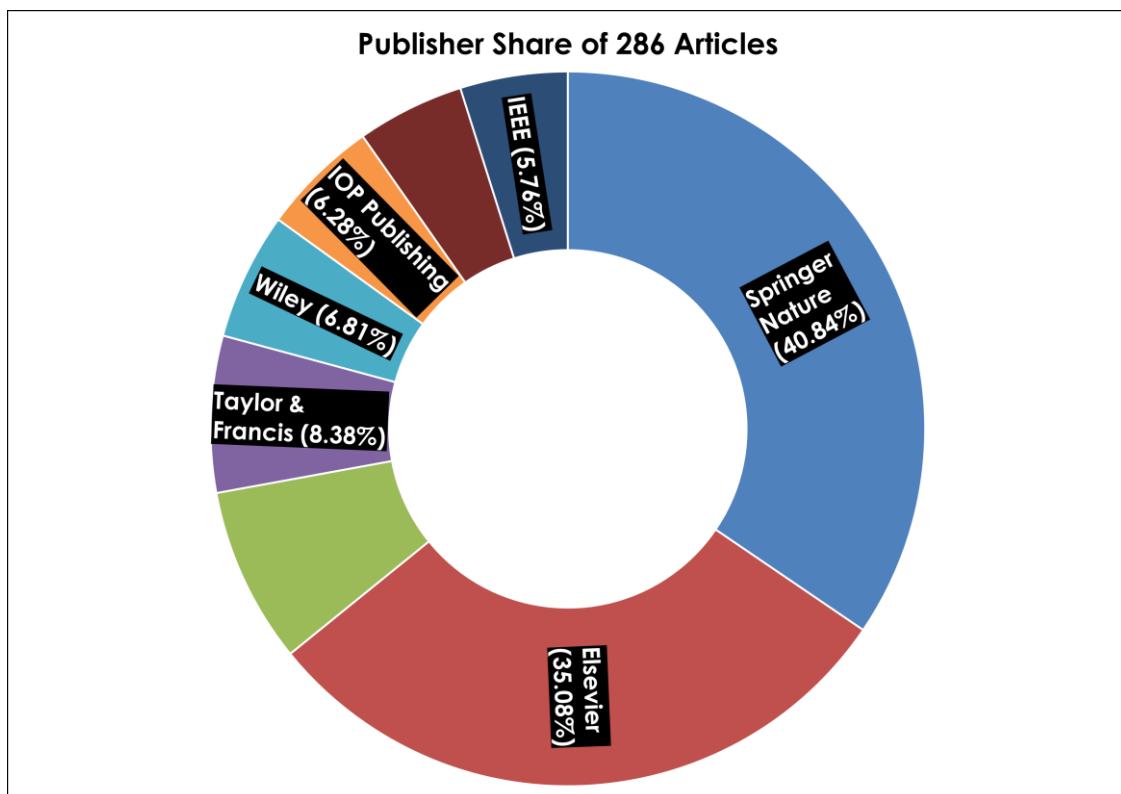
Journal Title	Publisher	Articles	% of Total
Astrophysical Journal	American Astronomical Society	15	7.85%
Journal of the Indian Society of Remote Sensing	Springer	12	6.28%
Monthly Notices of the Royal Astronomical Society	Oxford University Press	8	4.19%
Advances in Space Research	Elsevier Ltd	8	4.19%
Theoretical and Applied Climatology	Springer	4	2.09%
Journal of High Energy Physics	Springer	4	2.09%
Journal of Atmospheric and Solar-Terrestrial Physics	Elsevier Ltd	4	2.09%

Of 191 unique journals, only 19 (9.9%) carry 3 or more articles - confirming high bibliographic diversity. The Astrophysical Journal leads at 15 articles (5.24%), followed by Journal of the Indian Society Remote Sensing (12 articles). 149 journals carry exactly one article confirming exceptionally broad interdisciplinary reach across ISRO's research output, and the corpus draws on 40 distinct publishers.

8. Publisher Analysis

Publisher (All Imprints)	Articles	% of Total 349	Unique Journals
Springer Nature	78	40.84%	43
Elsevier	67	35.08%	47
American Astronomical Society	18	9.42%	3
Taylor & Francis	16	8.38%	13
Wiley	13	6.81%	12
IOP Publishing	12	6.28%	11
IEEE	11	5.76%	11
Oxford University Press	11	5.76%	3

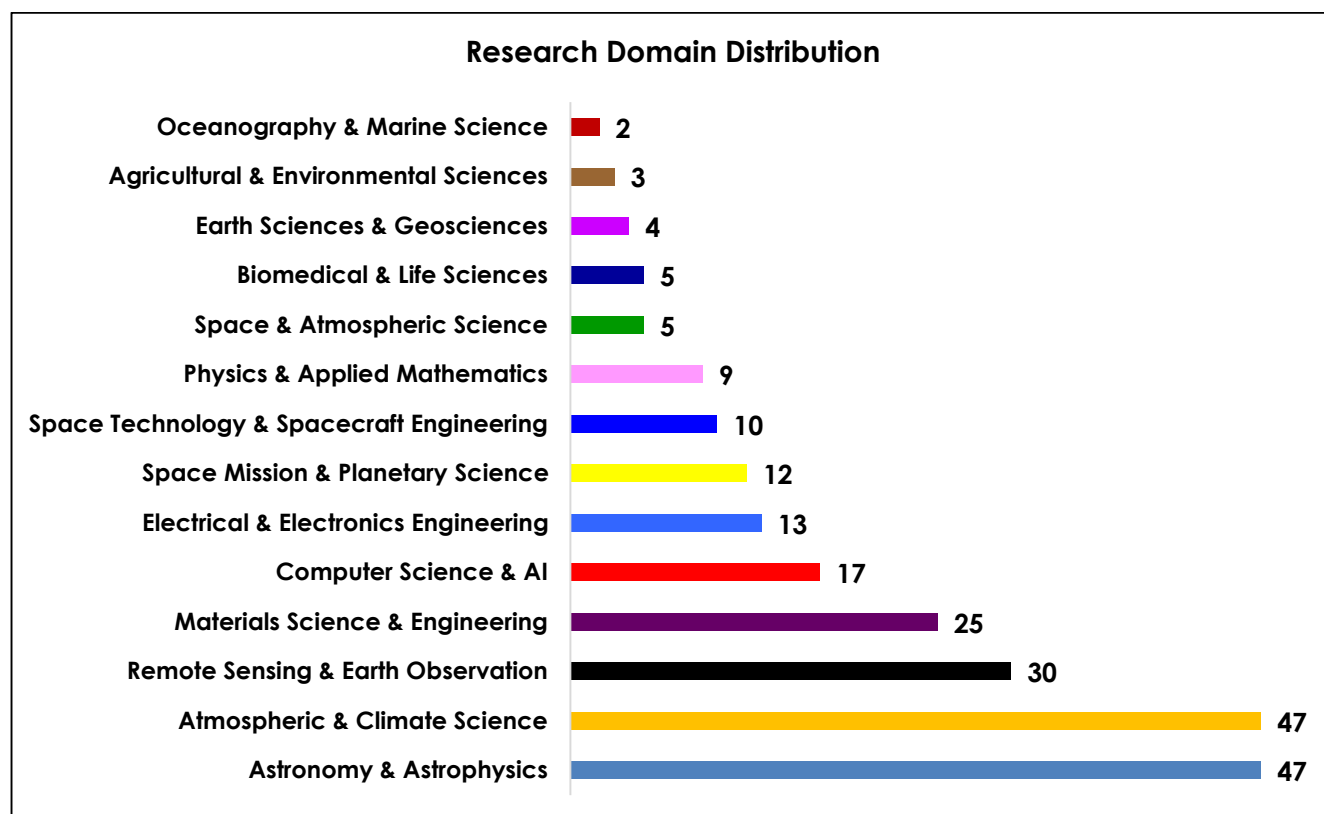
40 unique publisher groups are represented across 286 articles. Springer Nature (78 articles, 40.84%) and Elsevier (67 articles, 35.08%) together hold 75.92% of the corpus. American Astronomical Society ranks third (18 articles, 9.42%) a new top-tier entry driven by PRL's astrophysics output through the Astrophysical Journal family, followed by the Taylor and Francis (16 articles, 8.38%).



9. Research Domain Distribution

Articles are classified into 14 subject domains using rule-based keyword matching against journal title, article title and abstract; each article is assigned to a single dominant domain. Astronomy & Astrophysics and Atmospheric & Climate Science leads with 47 articles. Remote Sensing & Earth Observation ranks second (30 articles) and Materials Science & Engineering ranked third with 25 articles.

Subject Domain	No. of Journals	Total Articles	Dominant Journal & No. of Articles
Astronomy & Astrophysics	18	47	Astrophysical Journal with 15 articles
Atmospheric & Climate Science	41	47	Earth Systems and Environment with 2 articles
Remote Sensing & Earth Observation	19	30	Journal of the Indian Society of Remote Sensing with 12 articles
Materials Science & Engineering	18	25	Journal of Materials Engineering and Performance with 3 articles
Computer Science & AI	15	17	IETE Journal of Research with 3 articles
Electrical & Electronics Engineering	13	13	Microelectronics International with 1 article
Space Mission & Planetary Science	10	12	Advances in Space Research with 2 articles
Space Technology & Spacecraft Engineering	10	10	Defence Science Journal with 1 article
Physics & Applied Mathematics	6	9	Journal of High Energy Physics with 2 articles
Space & Atmospheric Science	3	5	Advances in Space Research with 3 articles
Biomedical & Life Sciences	5	5	Environmental Science and Pollution Research with 1 article
Earth Sciences & Geosciences	4	4	Acta Geochimica with 1 article
Agricultural & Environmental Sciences	3	3	International Journal of Environmental Research with 1 article
Oceanography & Marine Science	2	2	Geophysical Research Letters with 1 article



10. Cross-Cutting Research Themes

Cross-cutting themes are identified by word-boundary pattern-matching across titles and abstracts of all 286 articles; a single article may satisfy multiple themes. Modelling & Simulation is most prevalent at 129 articles (45.1%), followed by Indian Subcontinent Focus (96 articles, 33.6%). Mission-linked and space-experimental themes remain a smaller but distinct slice of the corpus, reflecting ISRO's dual role as both a mission operator and a broader multi-disciplinary research organisation.

Theme	Articles	% of 286	Significance
Modelling & Simulation	129	45.1	Numerical models, CFD, climate/weather/hydrological simulations, radiative transfer
Indian Subcontinent Focus	96	33.57	Research conducted over or specifically targeting India, Indian regions, or South Asia
Validation / Ground Truth	66	23.08	High emphasis on observational validation, in-situ, benchmark comparison
Satellite / Remote Sensing Data	58	20.28	Sentinel, MODIS, Landsat, IRS, Chandrayaan, Oceansat used as input
Experimental / Lab Work	57	19.93	Materials characterisation, propulsion, sensor fabrication, lab & field measurements
Novel / First-of-Kind Claims	37	12.94	Novelty language: 'novel', 'first time', 'new approach', 'first report'
AI / ML Methods Applied	36	12.59	Deep learning, neural networks, random forest, support vector machine prominent
Operational / Application Focus	24	8.39	Decision-support, real-time, early warning, operational systems, societal applications
Mission-Linked (ISRO)	17	5.94	Direct reference to INSAT, Cartosat, Chandrayaan, Aditya-L1, AstroSat, ISRO missions
Climate Change Focus	14	4.9	Explicit GHG framing, global warming, carbon footprint, net-zero, IPCC references
Space Mission / Experimental	14	4.9	In-orbit, onboard, spaceborne instrument, flight experiment context
International Datasets Used	10	3.5	ERA5, GRACE, CHIRPS, GPM, TRMM, Copernicus, CMIP6 global reanalysis datasets
Interdisciplinary / Multi-sensor Fusion	7	2.45	Combining data from multiple sensors, disciplines, or methodologies
Review / Meta-analysis	1	0.35	Systematic review, comprehensive review, multi-study synthesis, survey paper
<i>Note: Themes are not mutually exclusive - a single article may satisfy multiple themes simultaneously.</i>			

11. Novelty & First-of-Kind Claims

Pattern matching across titles and abstracts of 286 articles identifies 59 unique articles (20.63%) making explicit novelty or priority claims. The term 'novel' (standalone adjective) is most

common, appearing 30 times, followed by 'we propose' (10). These are lexical signals of claimed novelty as written by the authors, not an independent editorial assessment of actual scientific originality.

Novelty Term Used	Occurrences	Where it appears
'novel' (standalone adjective)	30	Most common; appears in materials, engineering, ML, and physics articles
'we propose'	10	Explicit authorial contribution framing; theoretical and applied studies
'we introduce'	7	New concept/framework introduction; modelling and instrumentation
'for the first time'	6	Explicit temporal priority claim; across observational & experimental studies
'we develop'	6	Development-oriented claim; algorithms, models, sensors
'newly'	5	Less formal but implies priority; method/dataset development context
'innovative'	2	Applied/engineering context; sensor design, remote sensing, applications
'unprecedented'	1	Strong novelty claim; used in observational and geophysical studies
'state-of-the-art'	1	Performance benchmarking claim; AI/ML and computational articles
'first-ever'	1	Superlative priority claim; experimental & astrophysics articles
'new method'	1	Methodological novelty; algorithms, computational & signal processing
TOTAL (unique articles)	59	20.63% of 286 articles

12. Open Access Status

Of 286 articles, 95 (33.22%) are openly accessible in some form. Gold OA leads at 75 articles (26.2%), followed by Hybrid (13), Green (6), and Bronze (1). 191 articles (66.8%) remain closed or paywalled, or lack OA metadata in this export. **An ISRO institutional OA mandate or APC fund would significantly improve discoverability of the 66.80% articles currently behind paywalls.**

12.1 Open Access Classification

OA Status	Articles	% of Total	What it means
Gold OA	75	26.2%	Immediately freely available on publication in a fully OA journal; APC paid by author or funder
Hybrid OA	13	4.5%	Published in a subscription journal; author paid APC to make this specific article open
Green OA	6	2.1%	Accepted manuscript self-archived in a repository (institutional/subject); journal version may be paywalled
Bronze OA	1	0.3%	Freely readable on publisher website but without a clear open licence (may be removed)
Closed / Paywalled	191	66.8%	No open access - readers need institutional subscription or pay-per-view
TOTAL	286	100%	Open articles (Gold+Hybrid+Green+Bronze) = 95 (33.22%) Closed (paywalled) = 191 (66.78%)

12.2 Publisher-Wise Classification of Open Access Articles

Publisher	Total Articles	Gold OA	Hybrid OA	Green OA	Bronze OA	Closed / Paywalled	Open Total	OA %
Springer Nature	78	11	3	4		60	18	23.1%
Elsevier	67	3		1		63	4	5.97%
American Astronomical Society	18	18					18	100.0%
Taylor & Francis	16				1	15	1	6.2%
Wiley	13	3	1			9	4	30.8%
IOP Publishing	12	3	5			4	8	66.7%
Oxford University Press	11	9				2	9	81.8%
IEEE	11	3				8	3	27.3%
American Physical Society	6	2	3			1	5	83.3%
American Chemical Society	5	2				3	2	40.0%
Multidisciplinary Digital Publishing Institute (MDPI)	4	4					4	100.0%
Defence Scientific Information and Documentation Centre	4	4					4	100.0%
SPIE	3					3	0	0.0%
Emerald Publishing	3					3	0	0.0%
AIAA	2					2	0	0.0%
EDP SCIENCES S A	2	2					2	100.0%
American Institute of Physics	2					2	0	0.0%
Copernicus Publications	2	2					2	100.0%
Birkhauser	2					2	0	0.0%
World Scientific	2					2	0	0.0%
Indian Academy of Sciences	2	2					2	100.0%
Frontiers Media SA	2	2					2	100.0%
SAE International	2					2	0	0.0%
India Meteorological Department	1	1					1	100.0%
Pleiades Publishing	1					1	0	0.0%
National University of Ireland Maynooth	1	1					1	100.0%
Science Press	1					1	0	0.0%
European Geoscience Union	1					1	1	0.0%
Korean Society for Aeronautical and Space Sciences	1					1	0	0.0%
Horizon e-Publishing Group	1	1					1	100.0%
University of Arkansa	1					1	0	0.0%
SAGE Publications Ltd	1					1	0	0.0%
ICE Publishing	1					1	0	0.0%
Optica Publishing Group	1					1	0	0.0%
KeAi Communications Co.	1	1					1	100.0%

AVS Science and Technology Society	1			1			1	100.0%
Geological Society of India	1					1	0	0.0%
Cambridge University Press	1	1					1	100.0%
Bon View Publishing Pte Ltd	1		1				1	100.0%
Instituto Italiano della Saldatura	1					1	0	0.0%
TOTAL	286	75	13	6	1	191	95	33.2%

13. Author Keywords Analysis

253 Articles with Keywords	33 No Keywords	1,317 Total KW Instances	1,221 Unique Keywords	5.2 Avg. KWs per Article
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Of 286 articles, 253 (88.5%) carry author-assigned keywords, yielding 1,317 keyword instances across 1,221 unique terms - a uniqueness rate of 92.7%. The 33 keywordless articles are concentrated among journals that use controlled subject taxonomies instead of free-text keywords (e.g. astrophysics journals using the AAS Unified Astronomy Thesaurus). Keyword richness across the corpus enables effective bibliometric clustering and thematic discovery.

13.1 Keywords Per Article Distribution

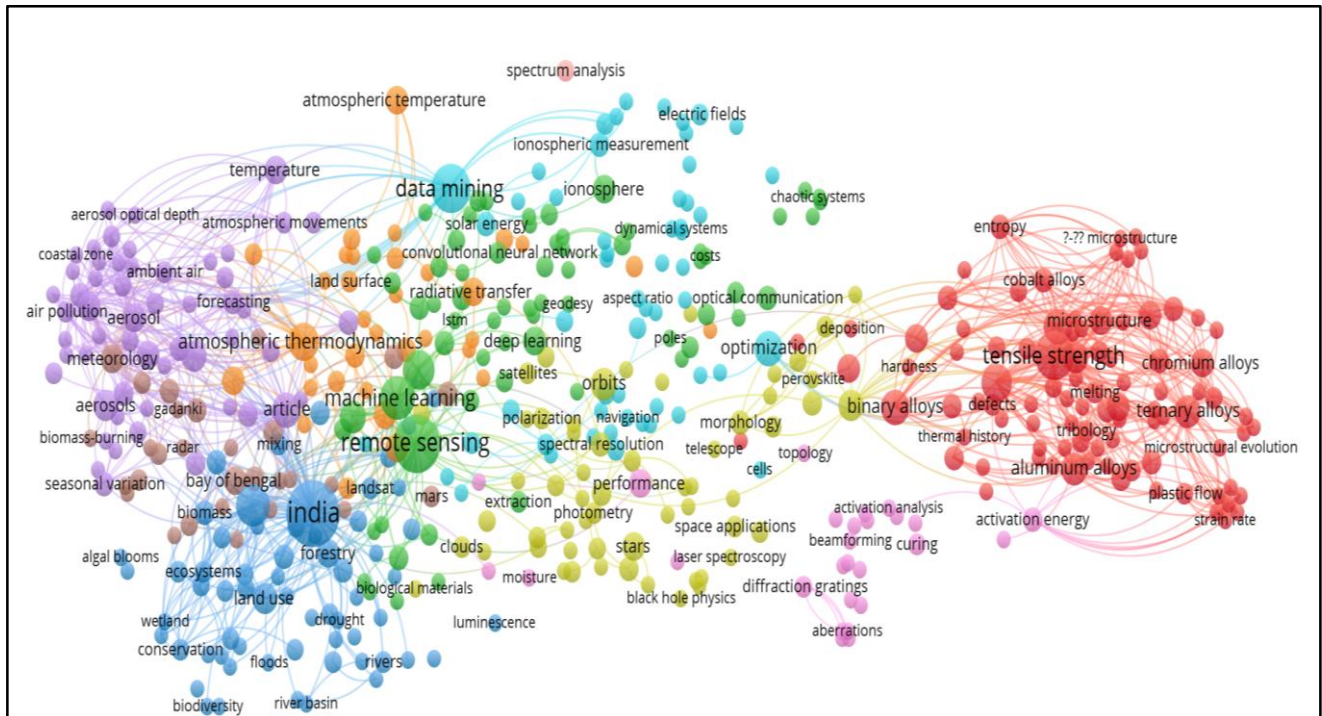
No. of Keywords	No. of Articles	% of Articles
0	33	11.5%
1	1	0.3%
2	6	2.1%
3	14	4.9%
4	44	15.4%
5	100	35.0%
6	55	19.2%
7	21	7.3%
8	5	1.7%
9	3	1.0%
10	2	0.7%
11	2	0.7%
TOTAL	286	100.0%

13.2 Keyword Occurrences

Keyword	Occurrences	% of Total Mentions
Remote sensing	8	0.61%
Machine learning	7	0.53%
Aerosols	4	0.3%
techniques: photometric	3	0.23%

techniques: spectroscopic	3	0.23%
Lidar	3	0.23%
Bay of Bengal	3	0.23%
Deep learning	3	0.23%
Indian summer monsoon	3	0.23%
Optimization	3	0.23%

The top recurring author keywords across 253 keyworded articles are: Remote sensing (8), Machine learning (7), Aerosols (4), techniques: photometric (3), techniques: spectroscopic (3).



VosViewer software (a visualization tool) is used to create the co-occurrence network of 1221 unique keywords from the 286 articles.

14. ISRO Missions & Platform Coverage

Mission / Instrument	Category	Articles Referencing
EO & Remote Sensing		
Oceansat / OCM	EO & Remote Sensing	4
Resourcesat / IRS / LISS	EO & Remote Sensing	1
EOS-04 / EOS-06 / EOS-08	EO & Remote Sensing	4
INSAT / GISAT / Kalpana	EO & Remote Sensing	4
TRISHNA	EO & Remote Sensing	-
Lunar & Planetary Missions		
Chandrayaan-2	Lunar & Planetary Missions	2
Chandrayaan-3	Lunar & Planetary Missions	-
Space Science & Astronomy		
Aditya-L1 (mission)	Space Science & Astronomy	4
AstroSat	Space Science & Astronomy	3

Navigation & Communication	Navigation & Communication	Navigation & Communication
NavIC / IRNSS	Navigation & Communication	2
Launch Vehicles	Launch Vehicles	Launch Vehicles
PSLV	Launch Vehicles	1
GSLV	Launch Vehicles	-
TOTAL (unique articles citing any ISRO mission/instrument)		21

21 unique articles (7.34% of 286) directly reference an ISRO mission or instrument by name, identified using word-boundary pattern-matching (an article may reference more than one mission). Oceansat/OCM and Aditya-L1 are the most frequently cited platforms in this corpus, reflecting active ocean-colour remote-sensing and the newly operational solar observatory's early science output.

15. Geographic Focus of Research

Region / Geography	Group	Articles Mentioning	% of Total
Asia-Pacific			
Japan	Asia-Pacific	0	0.0%
South Asia (broad)	Asia-Pacific	5	1.7%
Global / Other			
Tropics / Tropical	Global / Other	13	4.5%
Global scale	Global / Other	31	10.8%
Antarctica	Global / Other	0	0.0%
Europe	Global / Other	0	0.0%
United States	Global / Other	3	1.0%
India & Sub-regions			
India (general)	India & Sub-regions	96	33.6%
Himalaya / Hindu Kush	India & Sub-regions	15	5.2%
Indo-Gangetic Plain	India & Sub-regions	5	1.7%
Northeast India	India & Sub-regions	3	1.0%
Kerala	India & Sub-regions	1	0.3%
Uttarakhand / Kedarnath	India & Sub-regions	2	0.7%
Western Ghats	India & Sub-regions	2	0.7%
Deccan	India & Sub-regions	0	0.0%
Gujarat	India & Sub-regions	6	2.1%
Ladakh / Kashmir	India & Sub-regions	1	0.3%
Tamil Nadu	India & Sub-regions	3	1.0%
Indian Ocean Region			
Bay of Bengal	Indian Ocean Region	7	2.4%
Arabian Sea	Indian Ocean Region	4	1.4%
Indian Ocean	Indian Ocean Region	2	0.7%
Northern Indian Ocean	Indian Ocean Region	2	0.7%
Planetary Bodies			

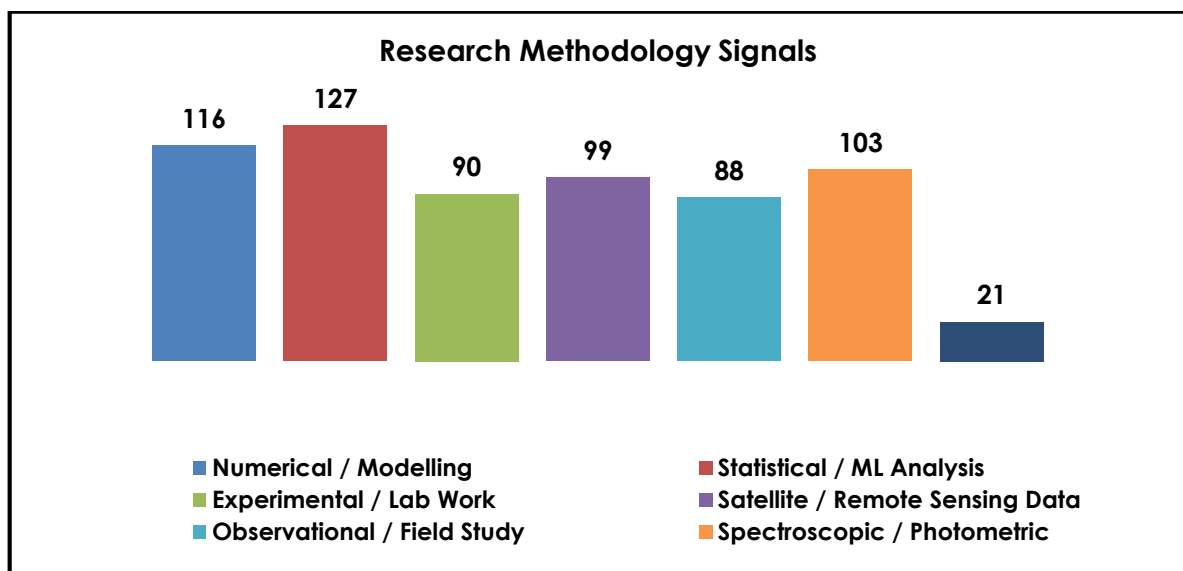
Moon / Lunar	Planetary Bodies	3	1.0%
Mars / Martian	Planetary Bodies	8	2.8%
Articles mentioning at least one geographic region		125	43.71

125 articles (43.71%) mention at least one identifiable geographic region in title or abstract. India (general) is the most common at 96 articles, followed by the Himalaya/Hindu Kush region (15) and the Bay of Bengal (7). Lunar and Martian references (3 and 8 respectively) reflect the planetary-science slice of the corpus.

16. Research Methodology Signals

Methodology signals are identified by pattern matching of titles and abstracts; a single article may satisfy multiple categories. Numerical / Modelling is most prevalent at 112 articles (39.2%), followed by Satellite / Remote Sensing Data (68 articles, 23.8%). Spectroscopic/photometric methods reflect the sizeable astrophysics cluster in the corpus, while satellite/remote-sensing signals track the Earth-observation cluster.

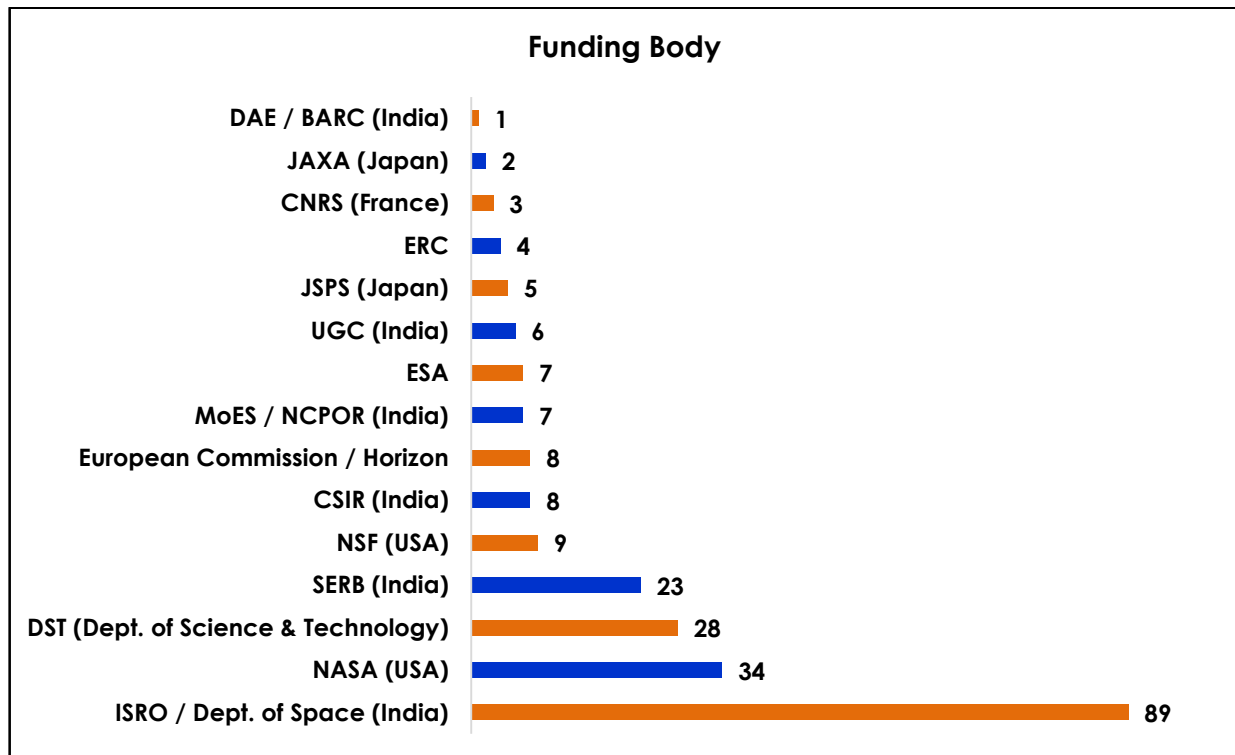
Methodology Signal	Articles	% of 286	Interpretation
Numerical / Modelling	112	39.2%	WRF, GCM, SWAT, HEC-RAS, FEM, virtual element, CFD, deep learning models
Satellite / Remote Sensing Data	68	23.8%	MODIS, Sentinel, ECOSTRESS, hyperspectral and satellite imagery inputs
Experimental / Lab Work	61	21.3%	Materials synthesis, electrochemical testing, biosensor fabrication, antenna prototypes
Statistical / ML Analysis	60	21.0%	Regression, correlation, CNN/LSTM, random forest, XGBoost, time-series methods
Spectroscopic / Photometric	34	11.9%	X-ray/UV/optical/radio spectroscopy; reflectance spectroscopy; photometric light curves
Observational / Field Study	29	10.1%	In-situ measurements, field campaigns, plot-based surveys, spacecraft in-situ data
Review / Meta-analysis	6	2.1%	Systematic literature reviews; comparative review papers



17. Funding Body Analysis

Of 286 articles in this corpus, 179 (62.6%) carry explicit funding acknowledgement text; the remaining 107 articles (37.4%) provide no funding information in the export. ISRO / Dept. of Space (India) leads with 89 articles (49.7% of funded articles, 31.1% of the full corpus), followed by NASA (USA) (34 articles) and DST (Dept. of Science & Technology) (28 articles).

	Funder / Agency	Category	Articles	% of 286 Articles	% of 157 Funded
1	ISRO / Dept. of Space (India)	Indian Govt.	89	31.1%	49.7%
2	NASA (USA)	International	34	11.9%	19.0%
3	DST (Dept. of Science & Technology)	Indian Govt.	28	9.8%	15.6%
4	SERB (India)	Indian Govt.	23	8.0%	12.8%
5	NSF (USA)	International	9	3.1%	5.0%
6	CSIR (India)	Indian Govt.	8	2.8%	4.5%
7	European Commission / Horizon	International	8	2.8%	4.5%
8	MoES / NCPOR (India)	Indian Govt.	7	2.4%	3.9%
9	ESA	International	7	2.4%	3.9%
10	UGC (India)	Indian Govt.	6	2.1%	3.4%
11	JSPS (Japan)	International	5	1.7%	2.8%
12	ERC	International	4	1.4%	2.2%
13	CNRS (France)	International	3	1.0%	1.7%
14	JAXA (Japan)	International	2	0.7%	1.1%
15	DAE / BARC (India)	Indian Govt.	1	0.3%	0.6%



18. DOI Coverage & Data Quality

285 of 286 articles (99.7%) carry a valid DOI. 33 articles (11.5%) are missing author-assigned keywords - this is a systematic artefact of American Astronomical Society journal practice (AAS Unified Astronomy Thesaurus subject tags are not indexed as author keywords by Scopus/Web of Science) and a small number of IEEE and engineering journals.

19. Notable Article Spotlights

★ **LARGEST CONSORTIUM IN CORPUS** | 1,327 Co-Authors | *Physical Review D*

Measurement of exclusive π^+ -argon interactions using ProtoDUNE-SP

Physical Review D (APS) | DOI: 10.1103/nm5s-4cnw | Year: 2026

1,327 authors | Hybrid OA | DUNE Collaboration | PRL Ahmedabad + LPSC (ISRO)

The DUNE (Deep Underground Neutrino Experiment) Collaboration's paper is the single largest consortium article in this 286-article corpus, with 1,327 co-authors. Using the ProtoDUNE single-phase liquid argon time-projection chamber, the study measures π^+ -argon inelastic cross sections across several exclusive interaction channels at 500-800 MeV incident energy. These measurements feed directly into simulation models used by liquid-argon neutrino experiments worldwide. PRL Ahmedabad participation places ISRO researchers within one of the largest active particle-physics collaborations, alongside institutions from dozens of countries.

★ **SECOND LARGEST CONSORTIUM** | 326 Co-Authors | *Astrophysical Journal Supplement Series (IOP)* | Gold OA

ExoClock Project. IV. A Homogeneous Catalog of 620 Updated Exoplanet Ephemerides

Astrophysical Journal Supplement Series (IOP) | DOI: 10.3847/1538-4365/ae3238 | Gold Open Access

326 authors | Gold OA (100% free access) | ExoClock Network | IIST Thiruvananthapuram (ISRO)

The second-largest consortium article in this corpus, with 326 co-authors, reports an updated catalog of 620 exoplanet transit-timing ephemerides. The ExoClock project integrates roughly 30,000 ground- and space-based observations (including Kepler, K2, and TESS) into a single homogeneous timing catalog, supporting efficient scheduling of future observations by missions such as ESA's Ariel. Published fully open access, this article reflects IIST's continued participation in a large, globally distributed amateur-professional exoplanet monitoring network.

★ **ADITYA-L1 FIRST SCIENCE** | ICME Turbulence Observation | *Astrophysical Journal* | Gold OA

Unprecedented Multipoint Observation of Spatially Varying Interplanetary Coronal Mass Ejection Turbulence of Different Ages during 2024 October Extreme Solar Storm at 1 au

Astrophysical Journal (AAS) | DOI: 10.3847/1538-4357/ae64e2 | 7 Authors | PRL / VSSC / SPL

7 authors | Gold OA | PRL Ahmedabad + VSSC/SPL Thiruvananthapuram

One of the corpus's flagship Aditya-L1-linked results, this paper reports a multipoint observation of turbulence within interplanetary coronal mass ejections (ICMEs) of different ages during the extreme October 2024 solar storm. Understanding this turbulence is central to space-weather forecasting, since it governs energy cascade, plasma heating, and the eventual geo-effectiveness of solar storms reaching Earth. The authors describe their multipoint perspective as unprecedented for events of this kind. Published open access in the *Astrophysical Journal*,

the work reflects joint contributions from PRL and VSSC/SPL, both closely tied to India's solar and space-weather research programme around Aditya-L1.

★ **CHANDRAYAAN-2 LUNAR SCIENCE / Surface-Exosphere Coupling / Astrophysical Journal / Gold OA**

Correlation between Lunar Surface and Exospheric Sodium: Effects of Albedo-driven Temperature on Multilayer Sodium Reservoirs Rather than Surface Abundance Variations

Astrophysical Journal (AAS) | DOI: 10.3847/1538-4357/ae6656 | 4 Authors | URSC
4 authors | Gold OA | URSC Bengaluru (ISRO)

This paper combines sodium abundance measurements from Chandrayaan-2's CLASS instrument with NASA's LADEE exospheric and DIVINER surface-temperature data to explain how the Moon's thin sodium exosphere relates to its surface composition. The authors find that albedo-driven surface temperature, rather than surface sodium abundance itself, is the dominant control on exospheric sodium behaviour - a distinction relevant to interpreting future lunar volatile and exosphere measurements. Published open access in the *Astrophysical Journal*, the work is authored entirely from URSC, illustrating how Chandrayaan-2 payload data continues to generate new planetary-science results well after the mission's active phase.

★ **LARGE CONSORTIUM / 115 Co-Authors / Astrophysical Journal / Gold OA**

Super-Eddington Accretion Geometry: A Remarkable Stability of the Hidden Ultraluminous X-Ray Source Cygnus X-3

Astrophysical Journal (AAS) | DOI: 10.3847/1538-4357/ae7366 | 115 Authors | PRL
115 authors | Gold OA | IXPE Collaboration | PRL Ahmedabad (ISRO)

This 115-author consortium paper uses NASA's Imaging X-ray Polarimetry Explorer (IXPE) to study the well-known ultraluminous X-ray source Cygnus X-3, measuring a polarization degree of about 21% that remains remarkably stable between two observation campaigns a year apart. The stability constrains models of the geometry of super-Eddington accretion - material falling onto a compact object faster than the theoretical Eddington limit - a regime thought to power some of the brightest X-ray sources in the universe. PRL's participation in the IXPE collaboration reflects ISRO's ongoing role in international X-ray polarimetry science.

Disclaimer:

“ISRO Research Highlights” compiles bibliometric data extracted from Scopus and Web of Science databases. For the present issue the data is extracted on 17th July 2026 for the journal articles indexed during 16th May 2026 to 17th July 2026. It may kindly be noted that indexing lags, non-standard affiliation strings, and database coverage gaps may result in undercounting of articles or authors. Centre-wise attribution reflects published affiliation records and may not capture all ISRO-affiliated contributions as some research might have been published in other journals which are not indexed in these two databases. All statistics - article counts, authorship figures, and thematic classifications - are descriptive only and must not be used as performance metrics or evaluation benchmarks. **“ISRO Research Highlights”** exists to celebrate, connect, and

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**LIST OF ARTICLES PUBLISHED BY DOS/ISRO CENTRES/UNITS INDEXED IN SCOPUS AND WEB OF SCIENCE DATABASES
DURING 16th MAY 2026 - 17th JULY 2026**

Sl. No.	Title of the Article	Author(s) from ISRO Centre/Unit
1	A 122 dB gain fully differential op-amp with a rail-to-rail output and novel offset compensation scheme	IIST
2	A combined drought index for monitoring and assessment of drought severity over India by integrating CHIRPS, MODIS and GRACE data	IIRS
3	A comprehensive three-dimensional thermophysical model for Mars	PRL
4	A general framework for divergence approximation on Gaussian mixture models	IIST
5	A Machine Learning Framework for Factors Influencing Cloud Condensation Nuclei	NARL
6	A Modified Multilevel Tracking Scheme for the Detection of Sunspot Umbral Dots	PRL
7	A Novel Combiner Rectenna Unit With Resistance Compression Network for Load Invariable Performance	IIST
8	A Novel Framework Using Unsupervised Machine Learning for Aerosol Classification: A Case Study of North Indian AERONET Sites	IIRS
9	A Novel MSPLL-Based Method for Frequency Synthesis in Hydrogen MASER	IIST/ISTRAC
10	A novel γ - γ' high-entropy superalloy with enhanced high-temperature performance	LPSC
11	A review of literature on smart manufacturing from people, process and technological dimensions: framework development and future research directions	IIST
12	A Review of Welding Techniques in Metal Additive Manufacturing: Advancements, Challenges, and Future Directions	IIST
13	A Scalable Edge-Integrated Architecture for Urban Flood Monitoring and Prediction	NESAC
14	A simple semi-automatic technique for rock glacier detection using widely accessible medium resolution optical remote sensing data	IIRS
15	A Space-based updated glacier inventory for the Central Himalaya, Uttarakhand, India, for 2020–2021	IIRS
16	A Strategy to Enhance Launch Vehicle Autopilot Design with its Subsystem Frequency Response Data Using Hybrid System Identification	VSSC

17	A study of the ionospheric response during intense geomagnetic storms over the Indian low-latitude region during the period 2017–2023	PRL
18	Activity and composition of periodic comets 67P/Churyumov-Gerasimenko and 103P/Hartley 2 at two different perihelion passages	PRL
19	Advancing Strength and Durability of Dissimilar Al/Mg Friction Stir Butt Welds: A Review	VSSC
20	Aerosol–Cloud Interaction Observed in the Mixed-Phase Cloud Using Ground-Based, In-Situ, and Satellite Remote Sensing Observations	NARL
21	Airglow imager observation of equatorial-plasma-irregularities in the Indian low/sub-low latitudes getting pinched-off and mergers during after/before midnights	NARL
22	Ambient Cured Solid Film Lubricants for Aerospace Systems: A Novel Material Design and Evaluation	VSSC
23	Aminotetrazole-Based Nitrogen-Rich Energetic Materials: From Primary to Secondary Explosives and Gas Generators	VSSC
24	An Improved Stabilization System for Magnetic Bearing of Reaction Wheels for Spacecraft	IIST/IISU/VSSC
25	An object-based custom ensemble framework for automated water body extraction using Sentinel-2 imagery	NRSC
26	Analog-Based Forecasting of Solar Cycles Using Dynamic Time Warping and Residual Bootstrapping: Real-Time Application to Cycle 25	VSSC
27	Analysis of storm surge dynamics using numerical modeling & geospatial techniques: A case study of Cyclone Dana	IIRS
28	Analytical representation for the electronic contribution of the nuclear Schiff interaction Hamiltonian	PRL
29	Anomalous response of the Mesosphere Lower Thermosphere temperature and OH airglow to 2025 Mw 8.8 Kamchatka Peninsula earthquake	NRSC
30	Aperture Field Analysis and Mobility-Aware Multiuser Modeling of Multibeam Multipolarized Holographic Metasurface Antennas for Low-Profile SATCOM Transmitters	IIST
31	Artificial intelligence in sport sciences: A systematic review of models and methods; [Künstliche Intelligenz in der Sportwissenschaft: Ein systematischer Überblick über Modelle und Methoden]	SDSC
32	Assessing the Influence of Coalescence on Precipitation Patterns: A Comparative Study with Disdrometer Data	SAC
33	Assessment of Earth Conical Shadow Models for Predicting Lunar Eclipses of Earth Orbiting Satellites	ISTRAC
34	Assessment of WRF skills in simulating diurnal rainfall and PBL height over the northwest Himalayan region	IIRS

35	Asymmetric marine heat wave patterns in the two basins of the North Indian Ocean	NRSC
36	Atmospheric cloud detection and cloud base height estimation from the Lidar backscatter: a two-step statistical and machine learning approach	PRL/SAC
37	Atmospheric River linkage in cloudburst event over Ramban, Jammu and Kashmir, India	NARL
38	BEYOND SPHERICAL GEOMETRY: UNRAVELING COMPLEX FEATURES OF OBJECTS ORBITING AROUND STARS FROM ITS TRANSIT LIGHT CURVE USING DEEP LEARNING	SAC
39	Biochar-Mediated Immobilization of Cadmium and Lead in Contaminated Soil: Effects on Growth, Nutrient Uptake, and Health Risk Mitigation in Indian Mustard	NRSC
40	Biogenic Secondary Organic Aerosols over the Bay of Bengal: Interplay with Aerosol Liquid Water Content and Biomass Burning	PRL
41	BTEX exposure-driven human health risks: a comprehensive analysis during COVID-19 lockdown in metropolitan city, India	PRL
42	Catalytic activity of nano copper oxide-graphitic carbon nitride composites on the thermal decomposition of molecular perovskite DAP-4	VSSC
43	Chaos based quantum key generation for image encryption/decryption in secure communication	IIST
44	Chaos gated tunneling drives molecular reactivity in astrophysical environments	IIST
45	Characteristics of the stable and convective boundary layer on Mars during a global dust storm year	PRL
46	Characterizing and Accelerating Spacecraft Onboard Workloads on RISC-V Platform	URSC
47	Characterizing solar cycle influence on long-term orbital deterioration of low-earth orbiting space debris	SPL/IIST
48	Classical field statistical phase-space analysis of passive turbulence mitigation using PMMA dielectric media	IIST
49	Climate Suitability, Environmental Heterogeneity and Anthropogenic Factors Jointly Shape the Spatial Patterns of Alien Plant Distributions Across India	NRSC
50	Cloud microphysics sensitivity and predictability of a multi-day extreme rainfall event over the Indian Himalayas in convective-permitting simulations	SAC/NARL
51	Color based allocation (CBA) approach for managing high user density in 6G networks	ISRO HQ
52	Composite years morphology of mesospheric sodium and potassium layers over the Brazilian low-latitude sector (23°S)	PRL

53	Correlation between Lunar Surface and Exospheric Sodium: Effects of Albedo-driven Temperature on Multilayer Sodium Reservoirs Rather than Surface Abundance Variations	URSC
54	Customization of the Parity Check Matrices for the Short Length Binary LDPC Codes	SAC
55	Deep-learning for urban air quality: Downscaling satellite nitrogen dioxide with ground observations over Delhi, India	SAC
56	Design of Robust Cryptographic Substitution Boxes Using Chaotic Lorentz Map and Improved Multi-objective PSO Technique	IIST
57	Design, testing, and flight performance of Compact Research Module for Orbital Plant Studies (CROPS) - A miniature plant growth chamber for PSLV orbital experiment module	VSSC
58	Developing a clay-assisted method for REE recovery from Amba Dongar carbonatite	PRL
59	Developing Guidelines for working with Multi-Model Ensembles in CMIP	IIST
60	Development and vibro-acoustic testing of a functionally graded porous cylindrical panel under localized heating	VSSC
61	Development of a dual-sensor-based robust adaptive optics system	IIST
62	Development of a novel γ - γ' high-entropy superalloy: Microstructure and tensile properties	LPSC
63	Development of algorithm for automatically generating corrected selenographic coordinates and imaging geometry for IIRS/Chandrayaan-2 datasets	SAC
64	Development of ProtoPol: a medium resolution echelle spectro-polarimeter for PRL telescopes, Mt. Abu, India-Part I: the design, development, and laboratory characterization	PRL
65	Development of ProtoPol: a medium-resolution echelle spectro-polarimeter for PRL telescopes, Mt. Abu, India-Part II: the data-reduction pipeline, on-sky characterization and performance verification, and first science results	PRL
66	Digitally inflected avant-gardisms: reconfiguring performance and subversion in contemporary political theatre	IIST
67	Discovery of an Ultrafast Outflow and Insights into the Coronal Geometry of the Super-Eddington Active Galactic Nucleus IRAS F12397+3333	URSC
68	Discovery of Spin-pulse Correlated Magnetic Gating Bursts in the Long-period Intermediate Polar PBC J0801.2–4625	PRL
69	Discovery of Variable Polarization in the H α Profile of the Symbiotic Star Y Gem: A Case for Orbital-phase-dependent Variation in Raman-scattered Ly β Emission	PRL

70	Dissimilar Welding of Nickel- and Cobalt-Based Superalloys: Effect of Welding Processes and Filler Metals on Metallurgical and Mechanical Characteristics of Joints	LPSC
71	Distinct dual-isotopic signatures of major methane sources in South Asia	PRL
72	Dual and triple mode groove gap waveguide filters for high-power low-loss mm-wave SATCOM applications	SAC
73	Dynamic Modelling of a Liquid Rocket Main Engine Valve	LPSC
74	Early interaction signatures and an extended plateau phase in Type II SN 2020aze	PRL
75	Effect of Anodization Duration on Crack-Free Anodized Aluminum Oxide Formation in Sulfuric Acid Anodized AA7075-T7352 Alloy for Aerospace Applications	LPSC
76	Effect of laser shock peening on microhardness, corrosion behaviour, and residual stress of WAAM-fabricated SS308L	LPSC
77	Effect of retrogression and re-aging heat treatment on microstructure and mechanical properties of Al-Zn-Mg-cu-Zr-Sc alloy	VSSC/LPSC
78	Effect of spectral resolution and signal-to-noise ratios on retrieval of XCO ₂ and XCH ₄ using an ultra-hyperspectral sensor	SAC
79	Effect of surface wind flow, relative humidity, vertical velocity and topography on convective organizations over Western Ghats using TRMM, GPM, Megha-Tropiques satellites and ERA reanalysis data	SPL
80	Effect of temperature and strain rate on the hot-workability characteristics of as-cast XH55 (55Ni-17Cr-12Fe-9Mo-2Nb-1.5Al) superalloy: An approach using processing map and constitutive equation	LPSC
81	Effect of the bottom side thickness parameter (B0) on the estimation of bottom side TEC (TEC _b) in the IRI model over the Indian low latitude station Ahmedabad	PRL
82	Effect of uncertainties in the electron temperature on the topside Venus ionosphere	PRL
83	Effects of Precursor Concentration and Drying on the Physicochemical and Thermal Properties of Co-Precursor-Based Silica Aerogel	URSC
84	Efficient and scalable horticulture species identification and crown segmentation using multi-modal vision transformers and unmanned aerial vehicles imagery	NRSC
85	Efficient quantum information-inspired ansatz for variational quantum eigensolver algorithm: Applications to atomic systems	PRL
86	Electrochemical impedance spectroscopy of high-temperature oxidation in Co-based superalloys (KC20WN and MP35N) in static hot air for aerospace applications	LPSC
87	Electronic Engineering of Donor–Acceptor Covalent Organic Frameworks via Fluorine Substitution for Efficient Solar Hydrogen Production	VSSC

88	Energy dynamics of rice cultivation: Comparative analysis of establishment methods for sustainable production	NRSC
89	Enhanced Land–Atmosphere Coupling via Land Information Systems' Soil-State Initialization: Improving Weather Research and Forecasting Model of Indian Summer Monsoon Circulation and Rainfall	IIST
90	Enhancing the sensitivity to neutrino oscillation parameters using synergy between T2K, NOvA and JUNO	PRL
91	Episode-wise spectropolarimetry of GRB 220107A: Testing the hypothesis of evolving radiation mechanisms	PRL
92	Estimating Soybean Production at Multiple Scale Using Remote Sensing Based Crop Model and Data from Both Optical and Microwave Sensor	SAC
93	Estimation and assimilation of GPS derived precipitable water vapour and its impact on atmospheric variables over the north west Himalayan region	IIRS
94	Estimation of Soil Moisture Using Multi-Polarization SAR Data: A Kernel Based Approach	NRSC
95	Evaluating a non-stationary merging framework for improved multi-source soil moisture over India	NESAC
96	Evaluating household reverse osmosis systems for microbial safety: A case study from Chennai, India	SDSC
97	Evaluating maturity of organic matter in hydrated C1 and CM-like clasts and a dehydrated clast within a polymict eucrite and a howardite	PRL
98	Evaluating the suitability of the GlobalBuildingAtlas for digital urban infrastructure analysis in India	NRSC
99	Evaluation of Convection Permitting Rainfall Forecast Over South Peninsular India During Northeast Monsoon Season	NARL
100	Evaluation of split-window methods for land surface temperature retrieval from the TIR observations of INSAT-3DS geostationary satellite	SAC
101	Exo-Atmospheric Trajectory Optimization for Small Satellite Launch Vehicles: A Robust Pseudo-Spectral Approach	IIST
102	ExoClock Project. IV. A Homogeneous Catalog of 620 Updated Exoplanet Ephemerides	IIST
103	Experimental and Numerical Investigation of Metal Foam-Filled Ultrathin Aluminum Honeycomb Sandwich Cores Under Axial Crushing: Effects of Cell Geometry and Wall Thickness on Crashworthiness Parameters	VSSC
104	Exploiting solute segregation and partitioning to the deformation-induced planar defects and nano-martensite in designing ultra-strong Co-Ni base alloys	VSSC
105	Exploring GRB localisation capability of proposed Daksha mission using coded mask imaging with its low-energy detectors	PRL

106	Failure Analysis of AA2014 Bracket used in Liquid Rocket Engine	LPSC
107	Fatigue Behavior of Additively Manufactured AISi10Mg Alloy Under Extreme Environment for Space Applications	SAC
108	Field-integrated spatial framework to guide groundwater development in semi-arid hard rock terrain for water management	PRL
109	Forced Response in the Mean State and Interannual Variability of the Indian Summer Monsoon in Future Projections	SPL
110	Formation of Melanterite From Marcasite: Insights Into Martian Transient Wet Conditions	IIST
111	Free vibration analysis of functionally graded plates with variable boundary conditions considering physical neutral surface	URSC
112	From nature to nano: green synthesis of zero-valent iron–copper nanoparticle for groundwater purification	NARL
113	Fumigation effect over a tropical coastal environment using the collocated measurements of black carbon aerosols and atmospheric boundary layer height	NARL
114	Functional trait responses of phytoplankton and zooplankton to environmental variability in nearshore waters of the Bay of Bengal, Tamil Nadu Coast	SAC
115	Geospatial analytics for urbanization monitoring using multi-temporal satellite imageries	NRSC
116	Green electrolyte additive using carboxymethylcellulose and vanillin for long-life Zn-ion hybrid capacitors	IIST
117	Harnessing space technology for sustainable expansion of muga sericulture in Northeast India	NESAC
118	High temperature oxidation behaviour of powder forged IN718 oxide dispersion strengthened (ODS) superalloy	VSSC
119	High-resolution analysis of tropical cyclone vortex structure using EOS-04 SAR: A case study of TC Biparjoy over NIO	SAC
120	Hot compression behavior and microstructural evolution of Al-Zn-Mg-Cu alloy in cast-homogenized and wrought conditions	IIST/LPSC
121	Hybrid deep learning strategies for robust launch vehicle data analysis and anomaly detection	VSSC
122	Hydrological transition from natural locking to artificial locking in the Indus River Basin (IRB) under warming climate	PRL
123	Hyperfine structures of 4s, 5s, 2S1/2, 3p 2P1/2,3/2, and mixed nd y2D3/2,5/2 states in 27Al I	PRL

124	Image quality metric parameter for holographic modal wavefront sensing	IIST
125	Impact of greening and enhanced cloudiness on aerosol-radiation interaction and its effects on net primary productivity over northwest India	SPL
126	Impact of laser shock peening on microstructure and cryogenic tensile behaviour of AA2219 friction stir weld	VSSC
127	Impacts of mitigating regional and trans-regional anthropogenic emissions on aerosols and meteorology over the non-attainment cities of western India	PRL
128	Instruments for Focal Plane X-Ray Polarimetry in the Next Decade	PRL
129	Integrated analytical investigation of surface discoloration and blooming in NBR-based Rocasin insulation for solid rocket motor applications	SDSC
130	Integrated Transport Analysis and Dynamic Photoexcitation of Interfacial Electronic States in Copper Phthalocyanine Nanojunctions	IIST
131	Integrating Cell-Free Networks with Base Stations for Enhanced Resource Optimization in 6G	ISRO HQ
132	Integrating Geospatial and Shear Stress Analysis to Predict Embankment Vulnerability Along the Brahmaputra River	NESAC
133	Integrating High-Resolution Mapping and Multiscale Fragmentation to Assess Ecosystem Patterns in Shola Forest - Grassland Mosaics of Western Ghats Biodiversity Hotspot	NRSC
134	Integrating WRF-CHEM simulation with Random Forest algorithm to evaluate the spatio-temporal variation of PM10 in Western Himalayan region of India	NARL
135	Intensification of the tropospheric warming and weakening of the lower stratospheric cooling: Insights from long-term (1980–2024) multi data sets	NARL
136	Internal Wave Characteristics in the Andaman Sea: New Insights From SWOT Observations	SAC
137	Interpretable Anomaly Detection in Space Systems Using Physics-Informed Clustering	VSSC
138	Intraplate deformation of Indian Plate: Insights from new cGPS derived Euler Pole	SAC
139	Investigating isolation-free analysis of extracellular vesicle derived biomarkers via electric-field lysis coupled with electrochemical immunosensor for detecting lung cancer	IIST
140	Investigating the impact of aerosol-cloud interactions on precipitation patterns in India	PRL
141	Investigating the yellow luminescence (YL) in GaN processing and its application as a metric for assessing plasma etch quality	SAC

142	Investigation of Hourglass-shaped Magnetic Fields in the G35.20–0.74 Star-forming Complex	PRL
143	Investigation of S-Shaped Cross-Section Tape Spring with Enhanced Deployment Characteristics	SAC
144	Investigation of the Mount Ruang volcanic eruption in Indonesia: a case study	PRL/SAC
145	Investigation of whistler waves associated with a flux rope near Venus	PRL
146	Investigation on Upstream Ion Events from the L1 Point Observation: New Insights	PRL
147	Ionospheric gradients in multi-constellation global navigation satellite system signals onboard UAV using GIM and Klobuchar model over Thailand region	PRL
148	Iron Fluorescence in X-Class Solar Flares: Aditya-L1/SoLEXS Observations	URSC
149	Ising model with power law resetting	IIST
150	Lagrangian approach for the reconstruction of source function in a parabolic equation using partial boundary measurements	IIST
151	Late Holocene monsoon-driven variability in sedimentary organic matter and lacustrine processes from Hulas Khera Lake, Central Ganga Plain, India	PRL
152	Late Quaternary evolution of the Ganga-Yamuna megafan, western Himalayan foreland: Insights into fluvial dynamics and drainage reorganization	PRL
153	Learnable kernels for FRI: Joint kernel–encoder optimization and hardware validation	SDSC
154	Least Cost Routing with Tuneable Weighted Costs between a Fixed and a Moving Node in a Dynamic Network	URSC
155	Least-Cost Multi-Hop Path for Autonomous Internetworking of Satellites for Optimal Transmission of Payload Data	URSC
156	Linking Rainfall Microphysics to Intensity Using the Dm-R-Nw Relationship Over the Northeastern Indian Subcontinent: Implications for GPM DPR Retrievals	NESAC
157	Long-Term CO ₂ Emissions From Anthropogenic Sectors and Recent Climatology of India	NRSC
158	Low latitude E layer variability in the vicinity of the magnetic equator studied using Gadanki ionosonde	NARL
159	Machine learning-based prediction of soil pH and EC using landsat 8 images	NRSC
160	Magnetic field topology and star formation in the Cepheus B filamentary cloud under external feedback	PRL

161	Magnetic Reconnection at a Hyperbolic Flux Tube Associated with a Confined Flare in NOAA Active Region 12268	PRL
162	Magnetization Control Problem for the 2D and 3D Evolutionary Landau-Lifshitz-Bloch Equation	IIST
163	Measurement of exclusive π^+ -argon interactions using ProtoDUNE-SP	PRL
164	Meghalayan age Indian Summer Monsoon dynamics in the core monsoon region: A multi-archive paleoclimate synthesis and teleconnections	PRL
165	Metallurgical Analysis of Failure Observed on 15-5 PH Stainless-Steel Flange Failed During Hydro Test	LPSC
166	Microstructural evolution and cryogenic-to-high-temperature response of XH55 superalloy (55Ni-17Cr-12Fe-9Mo-2Nb-1.5Al)	LPSC
167	Microwave Polar Brightening and Its Connection to Polar Coronal Holes	PRL
168	Mitigating Gate Resistance in 180 nm CMOS High-Frequency LC-VCOs: Enhanced Performance and Simulation-Model Validation	SAC
169	Mixture-of-algorithmic-experts: a robust and responsible framework for multinational-scale proximal sensor-based soil characterization	SAC
170	Modeling and Analysis of Main-belt Asteroidal Dust Flux and Velocity Distribution at Inner Planets	PRL
171	Modeling Ductile Damage in Stainless Steels for Sheet Metal Forming Applications	LPSC
172	Multi-agent Containment Control with Differentially Private Schemes and Quantization	IIST
173	Multifrequency radar observations of a dynamically-driven rare hailstorm formed under weak synoptic forcing environment	NARL
174	Multi-harvest detection and biomass estimation of Kharif fodder crop using C-band SAR time series data	SAC
175	Multimission Observations of GS 1354-64 during the 2025–2026 Outburst: First Results	URSC
176	Multi-sensor-based rock glacier detection over Sikkim Himalaya	IIRS
177	Multi-temporal InSAR analysis for assessment of earthquake precursory deformation	NESAC
178	Nanoparticle-enhanced continuum emission during early-stage of laser-produced plasma	PRL
179	Neural State-Space Hypergraph Networks: EEG Seizure Detection via Distributional and Geometric Inductive Biases	IIST

180	Neuromorphic tunnel junctions using atomic-layer-deposited Al ₂ O ₃ for emulating highly reliable synaptic functions	IIST
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