NEWS FEATURE

JBIS Index 2021 Volume 74

The Journal of the British Interplanetary Society (JBIS) is one of the two principal peerreviewed publications covering all aspects of space.

JBIS was first published in the 1930s, published its first interstellar papers in the early 1950s and has continued to publish on all aspects of interstellar studies since then. The Principium feature, *The Journals*, and its predecessor in our Interstellar News section has identified these papers since Issue 26, August 2019.

With the kind permission of the editor we reproduce the annual Index published in the final 2021 issue.

Contents by subje	ect			power requirements	202	Drake equation	258, 401
contents by subje			-	resources	289	Dysonian	56
Α		Hibernation	97 434	Mosquito-borne disease	91	extra-terrestrial probes	47, 76, 414, 427, 468
Ablogenesis	238	Horology Human spaceflight	434	Multi-generational travel	162, 243, 419	Fermi paradox megastructures	42, 409 193
Additive manufacturing	374	crew health	107, 443	NO		methods	414
ADS Library	252	EVA	107	Nanotechnology	150	METI	47
Aerobraking	278	food supply	374	Near-Earth Objects	2	power beams	196
Aerodynamics		hibernation	97	Nematode worm (C. elegans)	386	signal beacons	42, 414
re-entry	448	infection	443	Neptune		target zones	42
Alcubierre warp drive	64	interstellar	162, 243, 419	orbiter and probe	342	technosignatures	193, 269
Ant colony algorithm	101	food and medicine	107 374	Neutrinos	269	Wow! signal	196
Anthropology Arcanum	243, 419 342	medical supplies microflora	443	Nitrous oxide Nutrition	223 107	Serpent (nuclear engine study) Sociology	202 185
Artificial intelligence	101	Hydroponics	21	O'Neill, Gerard K.	234	Soil production	21
Asteroids		Hyperspectral imaging	91	Oort Cloud	358	Solar sails	278, 427, 468
Ceres	212	Hypothermia	97	Orbital mechanics	358	Solar power satellite	202, 454
deflection	2	IJ		'Oumuamua	427, 468	Solar wind	30
Earth co-orbital	76			PΩ		Somerville-Bingham probe	342
Earth Trojan	76	Infrastructure	40.0			Space access	130
resources	212, 278 238, 386	space elevator In Situ Resource Utilisation	454 156, 289	Planets	240	Space agriculture	21
Astrobiology Attitude control	238, 386	In Situ Resource Utilisation Interplanetary travel	156, 289	Neptune robotic exploration	342 101, 342	Space colonisation Space debris	21, 140, 401
Avalon orbital habitat study	234, 278	Interstellar migration	401	surface rovers	101, 342	DISCOS database	327
	254, 270	Interstellar object	427,4 68	Polaris (missile)	300	materials	327
В		Interstellar propulsion	56, 64	Power systems (see also Space power)		removal	459
Bacteria	443	Interstellar travel	162, 243, 398, 419	space-based solar power	454	Space elevator	212, 454
BioCubeSat	386	K L		Probiotics	443	Space exploration	162
Bioscience	386 300		227	Propulsion methods		Space manufacturing	278, 327
Black Arrow	300	Kalman filtering	381 193	beam-driven sail	196	Space medicine	97, 374
British Interplanetary Society BIS SPACE study	21, 278	Kardashev civilisation scale Kuiper belt	193	braking Bussard ramiet	398, 448 56	Space power power transmission	202
Re-inventing Space	318	objects	342	dark energy	56	superconductors	332
SLV project	130	Launch sites	352	electric	332, 427, 468	Space probes	342, 358
		Launch vehicles		electromagnetic	367, 459	Space safety	0.12, 0.00
C D		Black Arrow	300	fission	309	health risks	443
Communications	185, 381	economics	122	gas core	309	space debris	459
Cosmic expansion	56	failure tally curve	284	interstellar	56, 64	Space servicing	83
Cubesats	91, 113, 386	market	122	magnetic sail	398	Space settlements	140, 212, 234, 243, 401
Culture Dark energy	140 56	nitrous oxide reliability	223 284	magneto-plasmadynamic nitrous oxide	332 223	Space systems Space vehicle recovery	381
Dark energy Dark matter	42	Linguistics	185	nuclear plasma	309	Starlink	193
	42		100	nuclear thermal	309	Starshot	196
E		M		propellantless	398	Starshot laser array	
Earth defence	2	Magnetohydrodynamics	448	QSR	150	Statistics	284
Earth observation	91	Manufacturing		solar sail	427, 468	Stellar acceleration	269
Economics Environmental control system	122, 278	self-replication	409	solar thermal	427, 468	Stellar forces	269
Environmental control system Environmental protection	21 342, 454	Mars biosphere	156	solar wind ion focussing	30 64	Stellar neutrino jet	260
Environmental protection Ethics	342, 454	colonisation	156	warp drive wormship	64 56	Student projects Superconductors	332, 448, 459
Evolution	243, 401, 419	crewed mission	6	Pulse launch system	367	Superluminal travel	64
Exobiology	238	habitat	6			SWIFT thruster	30
Exotic matter	64	resources	156	R		T	
Extinction events	42	settlements	434	Radar tracking	76	I .	
Extra-terrestrial civilisation	193, 252, 258	terraforming	156	Radio noise	381	Terraforming	156, 212
Extra-terrestrial intelligence Extra-terrestrial probes	42, 76, 185, 196, 401, 414 42, 76, 409	Materials	398	Railgun	367 332, 448	Time measurement	434
Extra-terrestrial probes Extra-terrestrial resources	47, 76, 409	graphene high energy density	398 150	Re-entry system Religion	332, 448 140	Trans-Neptunian objects Triton mission	358 342
	21	nickel-titanium	113	Robotics	83,101		342
F G		shape memory alloy	113	Rocket	100,101	UV	
AST telescope	193	Measurement techniques		hybrid	223	United Kingdom	
Fermi paradox	42,409	time	434	nitrous oxide	223	launch vehicles	130, 300
Formation flight	459	Mechanical systems		quenching superconductor	150	nuclear deterrent	300
Genetics Global warming	162,243,419 454	solar panels	07 107 274 200 442	S		spaceports	342
Global warming Globus cylinder	454 234	Medical aspects METI (Messaging to ETI)	97, 107, 374, 386, 443 47, 185	Satellites		Unst launch site Von Neumann probes	130, 352
Sraphene	234 398	MHD (magnetohydrodynamics)	47, 185	Satellites attitude control	459	von iveumann probes	405
Gravity assist trajectory	358	Mid-air retrieval	319	de-tumbling	459 459	101 24 24 3	
Suidance systems (GNC)	83	Mission design	358	mega-constellations	83	WXYZ	
		Moon		servicing	83	Watchmaking	434
H		bearned power	202	Self-replicating machines	409	Water	
Habitable zones	42, 258	extra-terrestrial artefacts	76	SETI	0_000	abiogenesis	238
Habitats, Mars	6	flight to Earth	367	bibliography	252	stagnant	91

Commercial subscriptions (<u>bis-space.com/shop/product/jbis-subscription/</u>) and membership for individuals (<u>bis-space.com/shop/product-category/subscriptions/membership/</u>) give access to JBIS. Membership includes access to JBIS - currently from £135.00 per year for ages 25-65 with discounts for younger and older members.

BIS members receive a 20% discount on i4is membership (i4is.org/membership/).