

News Feature: The Journals

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Principium has been logging interstellar papers published in the Journal of the British Interplanetary Society (JBIS) for some years. In the last issue we also logged interstellar papers in Acta Astronautica (ActaA), the commercial journal published by Elsevier, with the endorsement of the International Academy of Astronautics. On this second occasion we have also aimed to capture ActaA papers since our last issue.

Title (open publication)	Author	Affiliation
Précis/Highlights		
JBIS V74 #8 August 2021	General Issue	
Dry Space and Solar Sails: Resource Limits and Environmental Constraints on Near Future Space Industry	Stephen Baxter	-
Roadmap to Nuclear Gas Core Rockets	Colin Warn	Washington State University
JBIS V10 October 2021	General Issue	
Possible Space Mission To The Trans-Neptunian Object 2012 VP113	Vladislav Zubko & Andrey Belyaev	Russian Academy of Sciences & Bauman Moscow State Technical University

Zubko & Belyaev - trajectory to 2012 VP113 in 2026 using the EVEEJN-A scheme with the time of flight of 32.7 yrs.

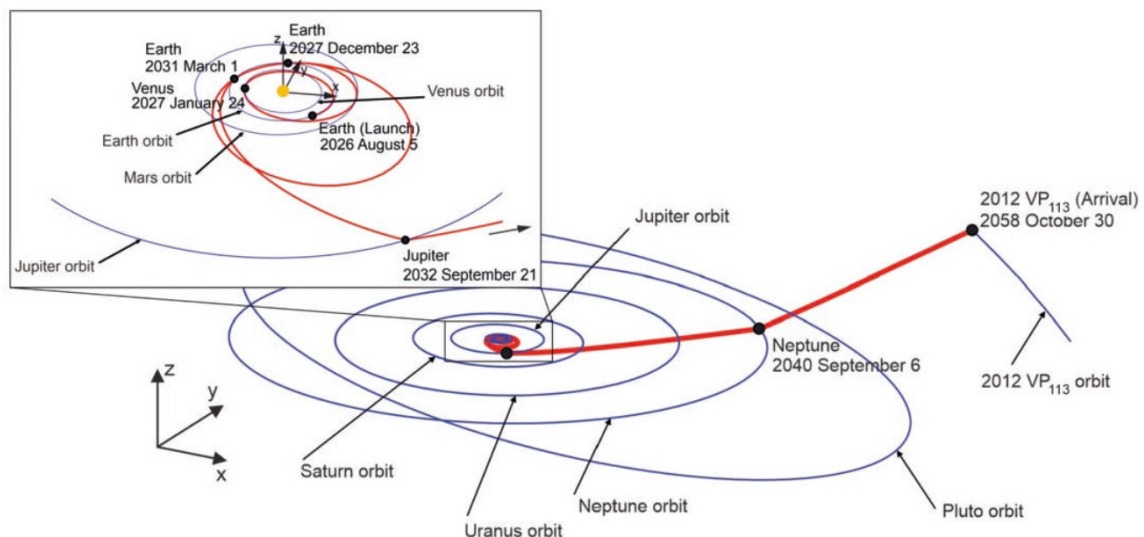


Fig.9 The trajectory to 2012 VP₁₁₃ in 2026 using the EVEEJN-A scheme with the time of flight of 32.7 yrs.

Two i4is papers in **bold** below.

Title	Number+date	Author(s)	Affiliation
Thinking ET: A discussion of exopsychology	#25 September 2021	Niklas Alexander Döbler, Marius Raab	Otto-Friedrich- Universität Bamberg
Exopsychology concerned with extraterrestrial minds is proposed. Extraterrestrials are identified as high-order cognitive agents. A distinction between inadmissible and admissible anthropocentrism is useful. We must investigate the human representation of extraterrestrials. The concept of intelligence is not useful to SETI.			
Sending a spacecraft to interstellar comet 2I/ Borisov*	#14 September 2021	Adam Hibberd, Nikolaos Perakis, Andreas M. Hein	i4is
Missions to Interstellar Object, 2I/Borisov, are studied. Chemical/High Impulsive Thrust Propulsion is assumed. A direct trajectory as well as a Jupiter/Solar Oberth Maneuver are examined. Viable missions are found using the NASA Space Launch System or the SpaceX Falcon Heavy.			
Strategies and advice for the Search for Extraterrestrial Intelligence*	#22 July 2021	Jason T. Wright	Penn State University
Overview of observational strategies for SETI. Rough map of the landscape of possible technosignatures. Discussion of the importance of and strategies for placing upper limits on technosignatures. Recommendations for those seeking to enter the field.			
ESA F-Class Comet Interceptor: Trajectory design to intercept a yet- to-be-discovered comet	#16 July 2021	Joan Pau Sánchez, David Morante, Cecilia Tubiana	Cranfield University
Comet-I mission aims to explore a Long Period Comet; ideally, dynamically new. Such a target will remain unidentified, possibly, even after launch. The paper analyses the orbital space that will be accessible for Comet-I S/C. Chemical, electric and hybrid propulsion systems are modelled in patched-conic. A Monte Carlo analysis shows a 95–99% of completing the mission within 6 years.			
Metalaw – What is it good for?	#29 June 2021	Michael Bohlander	Durham University
Metalaw, Cosmic ethics, SETI and Law, Hostile encounter, Discovery of ETI.			
Modal Analysis of Electric sail	#7 May 2021	Todd D. Lillian	Purdue University
Derivation of an analytical model for electric solar wind sail vibrations. Simple models accurately predict natural frequencies of electric solar wind sails. Hub and spoke electric solar wind sails can be configured to be infinitesimally stable.			
Near-term self- replicating probes - A concept design*	#2 April 2021	Olivia Borgue, Andreas M Hein	i4is
Self-replicating probes may enable exponentially accelerating space exploration. We present a concept for a near-term self-replicating probe. At least 70% of its dry mass can be replicated. Operations would be limited to the inner solar system. A technology roadmap for achieving full replication and interstellar exploration.			

* discussed elsewhere in Principium.