Farside explorer - DTU Orbit (14/12/2018)

**Farside explorer: unique science from a mission to the farside of the moon**

Farside Explorer is a proposed Cosmic Vision medium-size mission to the farside of the Moon consisting of two landers and an instrumented relay satellite. The farside of the Moon is a unique scientific platform in that it is shielded from terrestrial radio-frequency interference, it recorded the primary differentiation and evolution of the Moon, it can be continuously monitored from the Earth-Moon L2 Lagrange point, and there is a complete lack of reflected solar illumination from the Earth. Farside Explorer will exploit these properties and make the first radio-astronomy measurements from the most radio-quiet region of near-Earth space, determine the internal structure and thermal evolution of the Moon, from crust to core, and quantify impact hazards in near-Earth space by the measurement of flashes generated by impact events. The Farside Explorer flight system includes two identical solar-powered landers and a science/telecommunications relay satellite to be placed in a halo orbit about the Earth-Moon L2 Lagrange point. One lander would explore the largest and oldest recognized impact basin in the Solar System- the South Pole-Aitken basin-and the other would investigate the primordial highlands crust. Radio astronomy, geophysical, and geochemical instruments would be deployed on the surface, and the relay satellite would continuously monitor the surface for impact events.

**General information**

State: Published
Organisations: National Space Institute, Solar System Physics, German Aerospace Center, Universite de Toulouse, University Paris Diderot - Paris 7, California Institute of Technology, CNRS, Observatoire de Paris, MPIfR, Delft University of Technology, Planetary Science Institute, ISS Science Project Office ISAS, Institute of Radio Astronomy, Johns Hopkins University, University of Nantes, Leiden University, University of Glasgow, Southwest Research Institute, University of Notre Dame
Pages: 529-585
Publication date: 2012
Peer-reviewed: Yes

**Publication information**

Journal: Experimental Astronomy
Volume: 33
Issue number: 2-3
ISSN (Print): 0922-6435
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 1.88
Web of Science (2017): Impact factor 1.349
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.14
Web of Science (2016): Impact factor 2.313
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 2.3
Web of Science (2015): Impact factor 2.867
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 2.26
Web of Science (2014): Impact factor 1.99
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 2.28
Web of Science (2013): Impact factor 2.663
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.8
Web of Science (2012): Impact factor 2.969