# Don Banfield

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 90 papers | 6,197 citations | 61857 43 h-index | 66788 78 g-index |
| 92 all docs | 92 docs citations | 92 times ranked | 3102 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Voyager 2 at Neptune: Imaging Science Results. Science, 1989, 246, 1422-1449. | 6.0 | 573 |
| 2 | Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189. | 5.4 | 274 |
| 3 | SEIS: Insightâ€™s Seismic Experiment for Internal Structure of Mars. Space Science Reviews, 2019, 215, 12. | 3.7 | 238 |
| 4 | Aeolian processes at the Mars Exploration Rover Meridiani Planum landing site. Nature, 2005, 436, 58-61. | 13.7 | 233 |
| 5 | Atmospheric Imaging Results from the Mars Exploration Rovers: Spirit and Opportunity. Science, 2004, 306, 1753-1756. | 6.0 | 219 |
| 6 | Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220. | 5.4 | 207 |
| 7 | The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212. | 5.4 | 194 |
| 8 | Observation of moist convection in Jupiter's atmosphere. Nature, 2000, 403, 628-630. | 13.7 | 182 |
| 9 | The atmosphere of Mars as observed by InSight. Nature Geoscience, 2020, 13, 190-198. | 5.4 | 161 |
| 10 | Constraints on dust aerosols from the Mars Exploration Rovers using MGS overflights and Mini-TES. Journal of Geophysical Research, 2006, 111, n/a-n/a. | 3.3 | 159 |
| 11 | Jupiter's Cloud Structure from Galileo Imaging Data. Icarus, 1998, 135, 230-250. | 1.1 | 158 |
| 12 | Moist convection as an energy source for the large-scale motions in Jupiter's atmosphere. Nature, 2000, 403, 630-632. | 13.7 | 155 |
| 13 | Galileo's First Images of Jupiter and the Galilean Satellites. Science, 1996, 274, 377-385. | 6.0 | 152 |
| 14 | One Martian year of atmospheric observations using MER Mini-TES. Journal of Geophysical Research, 2006, 111, n/a-n/a. | 3.3 | 147 |
| 15 | Neptune's Story. Science, 1989, 245, 500-504. | 6.0 | 138 |
| 16 | Traveling waves in the martian atmosphere from MGS TES Nadir data. Icarus, 2004, 170, 365-403. | 1.1 | 107 |
| 17 | Geology of the InSight landing site on Mars. Nature Communications, 2020, 11, 1014. | 5.8 | 107 |
| 18 | Galileo Imaging of Jupiter's Atmosphere: The Great Red Spot, Equatorial Region, and White Ovals. Icarus, 1998, 135, 265-275. | 1.1 | 106 |

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|---|---|---|---|
| 19 | InSight Auxiliary Payload Sensor Suite (APSS). Space Science Reviews, 2019, 215, 1. | 3.7 | 104 |
| 20 | First Atmospheric Science Results from the Mars Exploration Rovers Mini-TES. Science, 2004, 306, 1750-1753. | 6.0 | 102 |
| 21 | Forced waves in the martian atmosphere from MGS TES nadir data. Icarus, 2003, 161, 319-345. | 1.1 | 101 |
| 22 | The Marsquake catalogue from InSight, sols 0â€“478. Physics of the Earth and Planetary Interiors, 2021, 310, 106595. | 0.7 | 97 |
| 23 | Thermal tides in the Martian middle atmosphere as seen by the Mars Climate Sounder. Journal of Geophysical Research, 2009, 114, . | 3.3 | 94 |
| 24 | Atmospheric Science with InSight. Space Science Reviews, 2018, 214, 1. | 3.7 | 88 |
| 25 | Geology and Physical Properties Investigations by the InSight Lander. Space Science Reviews, 2018, 214, 1. | 3.7 | 77 |
| 26 | Traveling waves in the Northern Hemisphere of Mars. Geophysical Research Letters, 2002, 29, 29-1-29-4. | 1.5 | 72 |
| 27 | Intense polar temperature inversion in the middle atmosphere on Mars. Nature Geoscience, 2008, 1, 745-749. | 5.4 | 71 |
| 28 | A dynamical history of the inner Neptunian satellites. Icarus, 1992, 99, 390-401. | 1.1 | 69 |
| 29 | Crustal and time-varying magnetic fields at the InSight landing site on Mars. Nature Geoscience, 2020, 13, 199-204. | 5.4 | 68 |
| 30 | Color and the Vertical Structure in Jupiter's Belts, Zones, and Weather Systems. Icarus, 2001, 154, 459-474. | 1.1 | 67 |
| 31 | Evaluating the Wind-Induced Mechanical Noise on the InSight Seismometers. Space Science Reviews, 2017, 211, 429-455. | 3.7 | 65 |
| 32 | Companion guide to the marsquake catalog from InSight, Sols 0â€“478: Data content and non-seismic events. Physics of the Earth and Planetary Interiors, 2021, 310, 106597. | 0.7 | 64 |
| 33 | Thermal tides and stationary waves on Mars as revealed by Mars Global Surveyor thermal emission spectrometer. Journal of Geophysical Research, 2000, 105, 9521-9537. | 3.3 | 62 |
| 34 | The Mars Environmental Dynamics Analyzer, MEDA. A Suite of Environmental Sensors for the Mars 2020 Mission. Space Science Reviews, 2021, 217, 48. | 3.7 | 57 |
| 35 | The science case for an orbital mission to Uranus: Exploring the origins and evolution of ice giant planets. Planetary and Space Science, 2014, 104, 122-140. | 0.9 | 56 |
| 36 | Stratospheric aerosols on Jupiter from Cassini observations. Icarus, 2013, 226, 159-171. | 1.1 | 54 |

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|---|---|---|---|
| 37 | Velocity and vorticity measurements of Jupiter's Great Red Spot using automated cloud feature tracking. Icarus, 2007, 188, 35-46. | 1.1 | 53 |
| 38 | Uranus and Neptune missions: A study in advance of the next Planetary Science Decadal Survey. Planetary and Space Science, 2019, 177, 104680. | 0.9 | 50 |
| 39 | Modeling of Ground Deformation and Shallow Surface Waves Generated by Martian Dust Devils and Perspectives for Near-Surface Structure Inversion. Space Science Reviews, 2017, 211, 501-524. | 3.7 | 49 |
| 40 | Impact-Seismic Investigations of the InSight Mission. Space Science Reviews, 2018, 214, 1. | 3.7 | 48 |
| 41 | The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, . | 4.7 | 47 |
| 42 | A Study of Daytime Convective Vortices and Turbulence in the Martian Planetary Boundary Layer Based on Halfâ€aâ€Year of InSight Atmospheric Measurements and Largeâ€Eddy Simulations. Journal of Geophysical Research E: Planets, 2021, 126, . | 1.5 | 45 |
| 43 | Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791. | 1.6 | 44 |
| 44 | Subsurface Structure at the InSight Landing Site From Compliance Measurements by Seismic and Meteorological Experiments. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006387. | 1.5 | 44 |
| 45 | Thermal tides during the 2001 Martian globalâ€scale dust storm. Journal of Geophysical Research E: Planets, 2014, 119, 506-519. | 1.5 | 42 |
| 46 | Near-IR Spectrophotometry of Jovian Aerosolsâ€"Meridional and Vertical Distributions. Icarus, 1998, 134, 11-23. | 1.1 | 41 |
| 47 | 2 Î¼m Spectrophotometry of Jovian Stratospheric Aerosolsâ€"Scattering Opacities, Vertical Distributions, and Wind Speeds. Icarus, 1996, 121, 389-410. | 1.1 | 38 |
| 48 | OSS (Outer Solar System): a fundamental and planetary physics mission to Neptune, Triton and the Kuiper Belt. Experimental Astronomy, 2012, 34, 203-242. | 1.6 | 37 |
| 49 | Saturnâ€™s cloud structure inferred from Cassini ISS. Icarus, 2013, 225, 93-110. | 1.1 | 36 |
| 50 | Near-IR Spectrophotometry of Saturnian Aerosolsâ€"Meridional and Vertical Distribution. Icarus, 2001, 152, 407-422. | 1.1 | 35 |
| 51 | An Environmental Wind Tunnel Facility for Testing Meteorological Sensor Systems. Journal of Atmospheric and Oceanic Technology, 2014, 31, 447-457. | 0.5 | 35 |
| 52 | Saturn's emitted power. Journal of Geophysical Research, 2010, 115, . | 3.3 | 33 |
| 53 | A Comodulation Analysis of Atmospheric Energy Injection Into the Ground Motion at InSight, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006538. | 1.5 | 33 |
| 54 | Pressure Effects on the SEISâ€InSight Instrument, Improvement of Seismic Records, and Characterization of Long Period Atmospheric Waves From Ground Displacements. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006278. | 1.5 | 31 |

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| 55 | Seasonal Variability of the Daytime and Nighttime Atmospheric Turbulence Experienced by InSight on Mars. Geophysical Research Letters, 2021, 48, e2021GL095453. | 1.5 | 31 |
| 56 | Effects of a Large Dust Storm in the Nearâ€Surface Atmosphere as Measured by InSight in Elysium Planitia, Mars. Comparison With Contemporaneous Measurements by Mars Science Laboratory. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006493. | 1.5 | 30 |
| 57 | The Holy Grail: A road map for unlocking the climate record stored within Marsâ€™ polar layered deposits. Planetary and Space Science, 2020, 184, 104841. | 0.9 | 30 |
| 58 | Monitoring of Dust Devil Tracks Around the InSight Landing Site, Mars, and Comparison With In Situ Atmospheric Data. Geophysical Research Letters, 2020, 47, e2020GL087234. | 1.5 | 30 |
| 59 | Martian Infrasound: Numerical Modeling and Analysis of InSight's Data. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006376. | 1.5 | 28 |
| 60 | The Hera Saturn entry probe mission. Planetary and Space Science, 2016, 130, 80-103. | 0.9 | 26 |
| 61 | Absolute Reflectivity Spectra of Jupiter: 0.25â€“3.5 Micrometers. Icarus, 1996, 121, 351-360. | 1.1 | 25 |
| 62 | Onâ€Deck Seismology: Lessons from InSight for Future Planetary Seismology. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006353. | 1.5 | 25 |
| 63 | Scientific Observations With the InSight Solar Arrays: Dust, Clouds, and Eclipses on Mars. Earth and Space Science, 2020, 7, e2019EA000992. | 1.1 | 24 |
| 64 | An HST Study of Jovian Chromophores. Icarus, 2001, 149, 94-106. | 1.1 | 23 |
| 65 | Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 1: Multiâ€Instrument Observations, Analysis, and Implications. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006757. | 1.5 | 23 |
| 66 | Strong jet and a new thermal wave in Saturn's equatorial stratosphere. Geophysical Research Letters, 2008, 35, . | 1.5 | 22 |
| 67 | Soil Thermophysical Properties Near the InSight Lander Derived From 50 Sols of Radiometer Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006859. | 1.5 | 22 |
| 68 | Determining a tilt in Titanâ€™s northâ€“south albedo asymmetry from Cassini images. Icarus, 2009, 203, 242-249. | 1.1 | 21 |
| 69 | A Martian sonic anemometer. , 2005, , . | | 20 |
| 70 | Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 2: Local Meteorology, Transport Dynamics, and Model Analysis. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006514. | 1.5 | 19 |
| 71 | Winds, waves and shorelines from ancient martian seas. Icarus, 2015, 250, 368-383. | 1.1 | 18 |
| 72 | Jovian chromophore characteristics from multispectral HST images. Icarus, 2011, 215, 552-583. | 1.1 | 16 |

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|---|---|---|---|
| 73 | Constraining Martian Regolith and Vortex Parameters From Combined Seismic and Meteorological Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006410. | 1.5 | 16 |
| 74 | Martian Weather Correlation Length Scales. Icarus, 1996, 119, 130-143. | 1.1 | 13 |
| 75 | A Martian acoustic anemometer. Journal of the Acoustical Society of America, 2016, 140, 1420-1428. | 0.5 | 13 |
| 76 | Seasonal seismic activity on Mars. Earth and Planetary Science Letters, 2021, 576, 117171. | 1.8 | 13 |
| 77 | Aerosols and methane in the ice giant atmospheres inferred from spatially resolved, near-infrared spectra: I. Uranus, 2001â€“2007. Icarus, 2018, 310, 54-76. | 1.1 | 12 |
| 78 | InSight Pressure Data Recalibration, and Its Application to the Study of Longâ€Term Pressure Changes on Mars. Journal of Geophysical Research E: Planets, 2022, 127, . | 1.5 | 12 |
| 79 | Kronos: exploring the depths of Saturn with probes and remote sensing through an international mission. Experimental Astronomy, 2009, 23, 947-976. | 1.6 | 10 |
| 80 | Geophysical Observations of Phobos Transits by InSight. Geophysical Research Letters, 2020, 47, e2020GL089099. | 1.5 | 10 |
| 81 | Operations and calibration of the solid-state imaging system during the Galileo extended mission at Jupiter. Optical Engineering, 2003, 42, 494. | 0.5 | 8 |
| 82 | Search for Infrasound Signals in InSight Data Using Coupled Pressure/Ground Deformation Methods. Bulletin of the Seismological Society of America, 2021, 111, 3055-3064. | 1.1 | 8 |
| 83 | Accommodation Study for an Anemometer on a Martian Lander. Journal of Atmospheric and Oceanic Technology, 2011, 28, 210-218. | 0.5 | 7 |
| 84 | In Situ exploration of the giant planets. Experimental Astronomy, 2022, 54, 975-1013. | 1.6 | 5 |
| 85 | SPRITE: A Saturn probe new frontiers mission. , 2018, , . | | 4 |
| 86 | Forward Modeling of the Phobos Tides and Applications to the First Martian Year of the InSight Mission. Earth and Space Science, 2021, 8, e2021EA001669. | 1.1 | 4 |
| 87 | Planetary descent probes: polarization nephelometer and hydrogen ortho/para instruments. , 2005, , . | | 3 |
| 88 | On the problem of a variable Mars atmospheric composition in the determination of temperature and density from the adiabatic speed of sound. Planetary and Space Science, 2020, 193, 105064. | 0.9 | 2 |
| 89 | The characterisation of cMUTs at low gas pressures. , 0, , . | | 1 |
| 90 | Flow Testing of a Sonic Anemometer for the Martian Environment. , 2020, , . | | 0 |