Sue Smrekar

List of Publications by Year in Descending Order

120 papers	5,106 citations	42 h-index	68 g-index
135 ext. papers	6,260 ext. citations	8.5 avg, IF	5.33 L-index

#	Paper	IF	Citations
120	Investigation of magnetic field signals during vortex-induced pressure drops at InSight. *Planetary and Space Science*, **2022**, 105487	2	0
119	The Determination of the Rotational State and Interior Structure of Venus with VERITAS. *Planetary Science Journal*, **2021**, 2, 220	2.9	3
118	Space Weather Observations With InSight. *Geophysical Research Letters*, **2021**, 48, e2021GL095432	4.9	0
117	Color Properties at the Mars InSight Landing Site. *Earth and Space Science*, **2021**, 8, e2020EA001336	3.1	1
116	Thickness and structure of the martian crust from InSight seismic data. *Science*, **2021**, 373, 438-443	33.3	54
115	Thermal Conductivity of the Martian Soil at the InSight Landing Site From HP3 Active Heating Experiments. *Journal of Geophysical Research E: Planets*, **2021**, 126, e2021JE006861	4.1	9
114	Upper mantle structure of Mars from InSight seismic data. *Science*, **2021**, 373, 434-438	33.3	45
113	Companion guide to the marsquake catalog from InSight, Sols 0–478: Data content and non-seismic events. *Physics of the Earth and Planetary Interiors*, **2021**, 310, 106597	2.3	35
112	Surface weathering on Venus: Constraints from kinetic, spectroscopic, and geochemical data. *Icarus* , **2021**, 358, 114139	3.8	11
111	The Marsquake catalogue from InSight, sols 0–478. *Physics of the Earth and Planetary Interiors*, **2021** , 310, 106595	2.3	45
110	Martian Mantle Heat Flow Estimate From the Lack of Lithospheric Flexure in the South Pole of Mars: Implications for Planetary Evolution and Basal Melting. *Geophysical Research Letters*, **2021**, 48, e2020GL091409	4.9	7
109	Analyzing Low Frequency Seismic Events at Cerberus Fossae as Long Period Volcanic Quakes. *Journal of Geophysical Research E: Planets*, **2021**, 126, e2020JE006518	4.1	7
108	Seismic detection of the martian core. *Science*, **2021**, 373, 443-448	33.3	54
107	A Global Survey of Lithospheric Flexure at Steep-Sided Domical Volcanoes on Venus Reveals Intermediate Elastic Thicknesses. *Journal of Geophysical Research E: Planets*, **2021**, 126, e2020JE006756	4.1	3
106	Near Surface Properties of Martian Regolith Derived From InSight HP3-RAD Temperature Observations During Phobos Transits. *Geophysical Research Letters*, **2021**, 48, e2021GL093542	4.9	6
105	Calibration of the HP3 Radiometer on InSight. *Earth and Space Science*, **2020**, 7, e2020EA001086	3.1	14
104	Geology of the InSight landing site on Mars. *Nature Communications*, **2020**, 11, 1014	17.4	59

103	The atmosphere of Mars as observed by InSight. *Nature Geoscience*, **2020**, 13, 190-198	18.3	93
102	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. *Nature Geoscience*, **2020**, 13, 213-220	18.3	129
101	Crustal and time-varying magnetic fields at the InSight landing site on Mars. *Nature Geoscience*, **2020**, 13, 199-204	18.3	42
100	The seismicity of Mars. *Nature Geoscience*, **2020**, 13, 205-212	18.3	121
99	Initial results from the InSight mission on Mars. *Nature Geoscience*, **2020**, 13, 183-189	18.3	155
98	Convection dans les plan□es « molles » : du laboratoire □V□us **2020**, 10-15	0.1	1
97	MSS/1: Single-Station and Single-Event Marsquake Inversion. *Earth and Space Science*, **2020**, 7, e2020EA001188	3.1	31
96	The Origin of Observed Magnetic Variability for a Sol on Mars From InSight. *Journal of Geophysical Research E: Planets*, **2020**, 125, e2020JE006505	4.1	5
95	Multispectral surface emissivity from VIRTIS on Venus Express. *Icarus*, **2020**, 335, 113400	3.8	4
94	SEIS: Insight's Seismic Experiment for Internal Structure of Mars. *Space Science Reviews*, **2019**, 215, 12	7.5	143
93	Calibration of the Heat Flow and Physical Properties Package (HP) for the InSight Mars Mission. *Earth and Space Science*, **2019**, 6, 2556-2574	3.1	7
92	Depletion of Heat Producing Elements in the Martian Mantle. *Geophysical Research Letters*, **2019**, 46, 12756-12763	4.9	5
91	InSight Auxiliary Payload Sensor Suite (APSS). *Space Science Reviews*, **2019**, 215, 1	7.5	64
90	Pre-mission InSights on the Interior of Mars. *Space Science Reviews*, **2019**, 215, 1	7.5	61
89	Signatures of Lithospheric Flexure and Elevated Heat Flow in Stereo Topography at Coronae on Venus. *Journal of Geophysical Research E: Planets*, **2018**, 123, 369-389	4.1	10
88	**2018**,		2
87	Venus Interior Structure and Dynamics. *Space Science Reviews*, **2018**, 214, 1	7.5	32
86	The Venus Emissivity Mapper (VEM): obtaining global mineralogy of Venus from orbit **2018**,		4

85	The Thermal State and Interior Structure of Mars. *Geophysical Research Letters*, **2018**, 45, 12,198-12,209	4.9	41
84	Impact-Seismic Investigations of the InSight Mission. *Space Science Reviews*, **2018**, 214, 1	7.5	36
83	Atmospheric Science with InSight. *Space Science Reviews*, **2018**, 214, 1	7.5	61
82	The Heat Flow and Physical Properties Package (HP3) for the InSight Mission. *Space Science Reviews* , **2018**, 214, 1	7.5	72
81	Geology and Physical Properties Investigations by the InSight Lander. *Space Science Reviews*, **2018**, 214, 1	7.5	53
80	Selection of the InSight Landing Site. *Space Science Reviews*, **2017**, 211, 5-95	7.5	104
79	Experimental and observational evidence for plume-induced subduction on Venus. *Nature Geoscience*, **2017**, 10, 349-355	18.3	83
78	Planned Products of the Mars Structure Service for the InSight Mission to Mars. *Space Science Reviews*, **2017**, 211, 611-650	7.5	69
77	Search for active lava flows with VIRTIS on Venus Express. *Journal of Geophysical Research E: Planets*, **2017**, 122, 1021-1045	4.1	7
76	Potential Effects of Surface Temperature Variations and Disturbances and Thermal Convection on the Mars InSight HP3 Heat-Flow Determination. *Space Science Reviews*, **2017**, 211, 277-313	7.5	8
75	Venus Surface Composition Constrained by Observation and Experiment. *Space Science Reviews*, **2017**, 212, 1511-1540	7.5	64
74	The InSight Mars Lander and Its Effect on the Subsurface Thermal Environment. *Space Science Reviews*, **2017**, 211, 259-275	7.5	13
73	The Venus Emissivity Mapper concept **2017**,		2
72	Interannual perturbations of the Martian surface heat flow by atmospheric dust opacity variations. *Journal of Geophysical Research E: Planets*, **2016**, 121, 2166-2175	4.1	12
71	The Venus Emissivity Mapper (VEM) concept **2016**,		3
70	Themis Regio, Venus: Evidence for recent (?) volcanism from VIRTIS data. *Icarus*, **2016**, 271, 375-386	3.8	16
69	VISAR: A next generation interferometric radar for venus exploration **2015**,		4
68	Lunar heat flow: Regional prospective of the Apollo landing sites. *Journal of Geophysical Research E: Planets*, **2014**, 119, 47-63	4.1	27

67	Coronae formation on Venus via extension and lithospheric instability. *Journal of Geophysical Research E: Planets*, **2014**, 119, 2568-2582	4.1	11
66	Planetary geochemical investigations using Raman and laser-induced breakdown spectroscopy. *Applied Spectroscopy*, **2014**, 68, 925-36	3.1	43
65	Probing the Interiors of Planets with Geophysical Tools **2014**, 1185-1204		0
64	The influence of temperature-dependent viscosity on lava flow dynamics. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 1516-1532	3.8	9
63	Future Mars geophysical observatories for understanding its internal structure, rotation, and evolution. *Planetary and Space Science*, **2012**, 68, 123-145	2	29
62	The history of Mars' dynamo as revealed by modeling magnetic anomalies near Tyrrhenus Mons and Syrtis Major. *Journal of Geophysical Research*, **2012**, 117,		27
61	Tumulus development on lava flows: insights from observations of active tumuli and analysis of formation models. *Bulletin of Volcanology*, **2012**, 74, 931-946	2.4	27
60	Constraints on mantle plumes on Venus: Implications for volatile history. *Icarus*, **2012**, 217, 510-523	3.8	39
59	Shallow Radar (SHARAD), pedestal craters, and the lost Martian layers: Initial assessments. *Journal of Geophysical Research*, **2011**, 116,		23
58	Massive CO□ice deposits sequestered in the south polar layered deposits of Mars. *Science*, **2011**, 332, 838-41	33.3	176
57	Mars high resolution gravity fields from MRO, Mars seasonal gravity, and other dynamical parameters. *Icarus*, **2011**, 211, 401-428	3.8	266
56	Recent hotspot volcanism on Venus from VIRTIS emissivity data. *Science*, **2010**, 328, 605-8	33.3	181
55	Phoenix and MRO coordinated atmospheric measurements. *Journal of Geophysical Research*, **2010**, 115,		34
54	Gravity analysis of Parga and Hecate chasmata: Implications for rift and corona formation. *Journal of Geophysical Research*, **2010**, 115,		6
53	Examination of gully sites on Mars with the shallow radar. *Journal of Geophysical Research*, **2010**, 115,		24
52	X band model of Venus atmosphere permittivity. *Radio Science*, **2010**, 45, n/a-n/a	1.4	3
51	Mars north polar deposits: stratigraphy, age, and geodynamical response. *Science*, **2008**, 320, 1182-5	33.3	232
50	Accumulation and erosion of Mars' south polar layered deposits. *Science*, **2007**, 317, 1715-8	33.3	66

49	An overview of the Mars Reconnaissance Orbiter (MRO) science mission. *Journal of Geophysical Research*, **2007**, 112,		135
48	Lithospheric structure in the eastern region of Mars dichotomy boundary. *Planetary and Space Science*, **2007**, 55, 280-288	2	17
47	SHARAD sounding radar on the Mars Reconnaissance Orbiter. *Journal of Geophysical Research*, **2007** , 112,		200
46	Density of Mars' south polar layered deposits. *Science*, **2007**, 317, 1718-9	33.3	65
45	Volcanism and volatile recycling on a one-plate planet: Applications to Venus. *Journal of Geophysical Research*, **2007**, 112,		41
44	Coronae of Parga Chasma, Venus. *Journal of Geophysical Research*, **2007**, 112,		9
43	Mars Reconnaissance Orbiter Radio Science Gravity Investigation. *Journal of Geophysical Research*, **2007**, 112,		34
42	New constraints on the thermal and volatile evolution of Mars. *Physics of the Earth and Planetary Interiors*, **2007**, 164, 161-176	2.3	14
41	Venus: Surface and Interior **2007**, 149-168		2
40	Tectonic and Thermal Evolution of Venus and the Role of Volatiles: Implications for Understanding the Terrestrial Planets. *Geophysical Monograph Series*, **2007**, 45-71	1.1	15
39	Global mapping of crustal and lithospheric thickness on Venus. *Journal of Geophysical Research*, **2006**, 111,		55
38	Elastic thickness estimates for the northern lowlands of Mars. *Earth and Planetary Science Letters*, **2006**, 248, 830-839	5.3	25
37	Statistical distribution of tumuli on pahoehoe flow surfaces: Analysis of examples in Hawaii and Iceland and potential applications to lava flows on Mars. *Journal of Geophysical Research*, **2005**, 110,		29
36	Relaxation of the Martian dichotomy boundary: Faulting in the Ismenius Region and constraints on the early evolution of Mars. *Journal of Geophysical Research*, **2005**, 110,		11
35	Large topographic rises, coronae, large flow fields, and large volcanoes on Venus: Evidence for mantle plumes? **2005**,		16
34	DYNAMO: a Mars upper atmosphere package for investigating solar wind interaction and escape processes, and mapping Martian fields. *Advances in Space Research*, **2004**, 33, 2228-2235	2.4	3
33	Laufey Regio: A newly discovered topographic rise on Venus. *Journal of Geophysical Research*, **2004**, 109,		9
32	Admittance survey of type 1 coronae on Venus. *Journal of Geophysical Research*, **2004**, 109,		24

31	Geologic evolution of the Martian dichotomy in the Ismenius area of Mars and implications for plains magnetization. *Journal of Geophysical Research*, **2004**, 109,		17
30	Effects of lithospheric properties on the formation of Type 2 coronae on Venus. *Journal of Geophysical Research*, **2003**, 108,		11
29	A gravity survey of Type 2 coronae on Venus. *Journal of Geophysical Research*, **2003**, 108,		18
28	Watershed identification of polygonal patterns in noisy SAR images. *IEEE Transactions on Image Processing*, **2003**, 12, 740-50	8.7	13
27	Characterization and formation of polygonal fractures on Venus. *Journal of Geophysical Research*, **2002**, 107, 8-1-8-17		17
26	Insights into corona formation through statistical analyses. *Journal of Geophysical Research*, **2002**, 107, 18-1-18-12		29
25	Scientific objectives of the DYNAMO mission. *Advances in Space Research*, **2001**, 27, 1851-1860	2.4	4
24	Preliminary analysis of an expanded corona database for Venus. *Geophysical Research Letters*, **2001**, 28, 4267-4270	4.9	54
23	The state and future of Mars polar science and exploration. *Icarus*, **2000**, 144, 210-42	3.8	83
22	Penetration tests on the DS-2 Mars microprobes: penetration depth and impact accelerometry. *Planetary and Space Science*, **2000**, 48, 419-436	2	25
21	Reply to: Self et al. discussion of "Pulsed inflation of pahoehoe lava flows: implications for flood basalt emplacement" *Earth and Planetary Science Letters*, **2000**, 179, 425-428	5.3	8
20	Origin of Corona-Dominated Topographic Rises on Venus. *Icarus*, **1999**, 139, 100-115	3.8	50
19	Pulsed inflation of pahoehoe lava flows: implications for flood basalt emplacement. *Earth and Planetary Science Letters*, **1999**, 168, 7-18	5.3	64
18	Deep Space 2: The Mars Microprobe Mission. *Journal of Geophysical Research*, **1999**, 104, 27013-27030		35
17	Tectonic effects of climate change on Venus. *Journal of Geophysical Research*, **1999**, 104, 30743-30756		19
16	Corona Formation and Heat Loss on Venus by Coupled Upwelling and Delamination. *Science*, **1997**, 277, 1289-1294	33.3	98
15	The interaction of mantle plumes with surface thermal and chemical boundary layers: Applications to hotspots on Venus. *Journal of Geophysical Research*, **1996**, 101, 5397-5410		48
14	Large topographic rises on Venus: Implications for mantle upwelling. *Journal of Geophysical Research*, **1995**, 100, 23317		65

13	Evidence for Active Hotspots on Venus from Analysis of Magellan Gravity Data. *Icarus*, **1994**, 112, 2-26	3.8	71
12	Gravitational spreading of high terrain in Ishtar Terra, Venus. *Journal of Geophysical Research*, **1992**, 97, 16121		37
11	Magellan observations of Alpha Regio: Implications for formation of complex ridged terrains on Venus. *Journal of Geophysical Research*, **1992**, 97, 13563		55
10	Venus tectonics: An overview of Magellan observations. *Journal of Geophysical Research*, **1992**, 97, 13199		219
9	Styles of deformation in Ishtar Terra and their implications. *Journal of Geophysical Research*, **1992**, 97, 16085		34
8	Correction to Venus tectonics: An overview of Magellan observations by Sean C. Solomon et al.. *Journal of Geophysical Research*, **1992**, 97, 16381		4
7	Venusian highlands: geoid to topography ratios and their implications. *Earth and Planetary Science Letters*, **1991**, 107, 582-597	5.3	108
6	Gravity-driven deformation of the crust on Venus. *Geophysical Research Letters*, **1988**, 15, 693-696	4.9	26
5	Small-scale impacts into rock: An evaluation of the effects of target temperature on experimental results. *Geophysical Research Letters*, **1986**, 13, 745-748	4.9	7
4	Near-infrared spectroscopy of probable impact melt from three large lunar highland craters. *Icarus*, **1985**, 63, 442-452	3.8	48
3	Venus tectonics81-120		2
2	VERITAS (Venus Emissivity, Radio Science, InSAR, Topography And Spectroscopy): A Proposed Discovery Mission		5
1	InSight constraints on the global character of the Martian crust. *Journal of Geophysical Research E: Planets*,	4.1	10