

# Gary Bust

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/914300/publications.pdf>

Version: 2024-02-01

72  
papers

1,777  
citations

304743

22  
h-index

289244

40  
g-index

77  
all docs

77  
docs citations

77  
times ranked

1357  
citing authors

#	ARTICLE	IF	CITATIONS
1	History, current state, and future directions of ionospheric imaging. <i>Reviews of Geophysics</i> , 2008, 46, .	23.0	210
2	Ionospheric Data Assimilation Three-Dimensional (IDA3D): A global, multisensor, electron density specification algorithm. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	180
3	The Ionospheric Connection Explorer Mission: Mission Goals and Design. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	152
4	Global thermosphere-ionosphere response to onset of 20 November 2003 magnetic storm. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	105
5	Intelligent systems for geosciences. <i>Communications of the ACM</i> , 2018, 62, 76-84.	4.5	71
6	Two-dimensional mapping of the plasma density in the upper atmosphere with computerized ionospheric tomography (CIT). <i>Physics of Plasmas</i> , 1998, 5, 2010-2021.	1.9	54
7	Four-dimensional GPS imaging of space weather storms. <i>Space Weather</i> , 2007, 5, n/a-n/a.	3.7	53
8	Ionospheric data assimilation and forecasting during storms. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 764-778.	2.4	51
9	Tracking of polar cap ionospheric patches using data assimilation. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	49
10	Ionospheric scintillation over Antarctica during the storm of 5-6 April 2010. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	45
11	GPS phase scintillation associated with optical auroral emissions: First statistical results from the geographic South Pole. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 2490-2502.	2.4	45
12	Combined Ionospheric Campaign 1: Ionospheric tomography and GPS total electron count (TEC) depletions. <i>Geophysical Research Letters</i> , 2000, 27, 2849-2852.	4.0	43
13	Satellite-beacon Ionospheric-scintillation Global Model of the upper Atmosphere (SIGMA) I: High-latitude sensitivity study of the model parameters. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4026-4043.	2.4	40
14	C/NOFS observations of intermediate and transitional scale-size equatorial spread irregularities. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	31
15	Observed and modeled thermosphere and ionosphere response to superstorms. <i>Radio Science</i> , 2007, 42, .	1.6	30
16	Identification of scintillation signatures on GPS signals originating from plasma structures detected with EISCAT incoherent scatter radar along the same line of sight. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 916-931.	2.4	28
17	Satellite-beacon Ionospheric-scintillation Global Model of the upper Atmosphere (SIGMA) II: Inverse modeling with high-latitude observations to deduce irregularity physics. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 9188-9203.	2.4	26
18	Tomographic studies of aeronomic phenomena using radio and UV techniques. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2002, 64, 1573-1580.	1.6	25

#	ARTICLE	IF	CITATIONS
19	High-latitude plasma structure and scintillation. <i>Radio Science</i> , 2004, 39, n/a-n/a.	1.6	25
20	Estimating $E$ region density profiles from radio occultation measurements assisted by IDA4D. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	25
21	IRI data ingestion and ionospheric tomography. <i>Advances in Space Research</i> , 2001, 27, 157-165.	2.6	22
22	Radio tomographic imaging of sporadic $E$ layers during SEEK-2. <i>Annales Geophysicae</i> , 2005, 23, 2357-2368.	1.6	22
23	Ionospheric observations of the November 1993 storm. <i>Journal of Geophysical Research</i> , 1997, 102, 14293-14304.	3.3	21
24	Initial GPS scintillation results from CASES receiver at South Pole, Antarctica. <i>Radio Science</i> , 2012, 47, .	1.6	21
25	First light from a kilometer baseline Scintillation Auroral GPS Array. <i>Geophysical Research Letters</i> , 2015, 42, 3639-3646.	4.0	21
26	Application of ionospheric tomography to single-site location range estimation. <i>International Journal of Imaging Systems and Technology</i> , 1994, 5, 160-168.	4.1	19
27	Observations of the F region height redistribution in the storm-time ionosphere over Europe and the USA using GPS imaging. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	19
28	Neutral wind estimation from $E$ ionospheric electron density images. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	18
29	Effects of solar cycle 24 activity on WAAS navigation. <i>Space Weather</i> , 2014, 12, 46-63.	3.7	18
30	Mid-America Computerized Ionospheric Tomography Experiment (MACE '93). <i>Radio Science</i> , 1995, 30, 105-108.	1.6	17
31	Computerized ionospheric tomography analysis of the Combined Ionospheric Campaign. <i>Radio Science</i> , 2001, 36, 1599-1605.	1.6	16
32	Verification of ionospheric sensors. <i>Radio Science</i> , 2001, 36, 1523-1529.	1.6	15
33	Ionospheric data assimilation applied to HF geolocation in the presence of traveling ionospheric disturbances. <i>Radio Science</i> , 2017, 52, 829-840.	1.6	15
34	Evidence for the tongue of ionization under northward interplanetary magnetic field conditions. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	14
35	Recent results of the CEDAR storm study. <i>Advances in Space Research</i> , 1997, 20, 1655-1664.	2.6	13
36	Deducing storm time $F$ region ionospheric dynamics from 3-D time-varying imaging. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	13

#	ARTICLE	IF	CITATIONS
37	Distributed sensing of ionospheric irregularities with a GNSS receiver array. <i>Radio Science</i> , 2017, 52, 988-1003.	1.6	13
38	Amplitudes and wavelengths of wavy Taylor vortices. <i>Physics of Fluids</i> , 1985, 28, 1243.	1.4	12
39	Modeled and observed equatorial thermospheric winds and temperatures. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 5832-5844.	2.4	11
40	Three-dimensional modeling of high-latitude scintillation observations. <i>Radio Science</i> , 2016, 51, 1022-1029.	1.6	11
41	First storm-time plasma velocity estimates from high-resolution ionospheric data assimilation. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7458-7471.	2.4	10
42	Ionospheric irregularities during a substorm event: Observations of ULF pulsations and GPS scintillations. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2014, 114, 1-8.	1.6	10
43	IDA4D: Ionospheric Data Assimilation for the ICON Mission. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	10
44	An interhemispheric comparison of GPS phase scintillation with auroral emission observed at the South Pole and from the DMSP satellite. <i>Annals of Geophysics</i> , 2013, 56, .	1.0	10
45	Variations in the midlatitude and equatorial ionosphere during the October 2003 magnetic storm. <i>Radio Science</i> , 2006, 41, n/a-n/a.	1.6	9
46	Radio tomographic imaging of the northern high-latitude ionosphere on a wide geographic scale. <i>Radio Science</i> , 2005, 40, n/a-n/a.	1.6	8
47	Global observations of <i>E</i> region plasma density morphology and variability. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	8
48	GEOScan: A global, real-time geoscience facility. , 2013, , .		8
49	Tomographic Imaging of Traveling Ionospheric Disturbances Using GNSS and Geostationary Satellite Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027551.	2.4	7
50	Were the Lyman-alpha clouds formed from shocks?. <i>Astrophysical Journal</i> , 1987, 319, 14.	4.5	7
51	Assimilation of thermospheric measurements for ionosphere-thermosphere state estimation. <i>Radio Science</i> , 2016, 51, 1818-1837.	1.6	6
52	Night-time Ionospheric Localized Enhancements (NILE) Observed in North America Following Geomagnetic Disturbances. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029324.	2.4	6
53	LOFAR as an ionospheric probe. <i>Planetary and Space Science</i> , 2004, 52, 1375-1380.	1.7	5
54	Mapping the Time-Varying Distribution of High-Altitude Plasma During Storms. <i>Geophysical Monograph Series</i> , 0, , 91-98.	0.1	5

#	ARTICLE	IF	CITATIONS
55	Development and error analysis of nonlinear ionospheric removal algorithm for ionospheric electron density determination using broadband RF data. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	5
56	Mapping plasma structures in the high-latitude ionosphere using beacon satellite, incoherent scatter radar and ground-based magnetometer observations. <i>Annals of Geophysics</i> , 2009, 45, .	1.0	5
57	A novel data assimilation technique for the plasmasphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8470-8485.	2.4	4
58	Estimating Height and Thickness of an Ionospheric Irregularity Layer with a Closely-Spaced GNSS Receiver Array. , 0, , .		4
59	GEOScan: a geoscience facility from space. <i>Proceedings of SPIE</i> , 2012, , .	0.8	2
60	Ionospheric Irregularity Layer Height and Thickness Estimation With a GNSS Receiver Array. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 6198-6207.	6.3	2
61	The Coherent Electromagnetic Radio Tomography (CERTO) experiment on ARGOS. , 2001, , .		1
62	Assimilation of GNSS Measurements for Estimation of High-Latitude Convection Processes. <i>Space Weather</i> , 2020, 18, e2019SW002409.	3.7	1
63	Auroral E and F Layer Ionospheric Irregularities Sensed by a Kilometer-Spaced GNSS Receiver Array. , 0, , .		1
64	Properties of high latitude irregularities with a short-baseline 2D GPS scintillation array. , 2014, , .		0
65	Inferring 2D spatio-temporal properties of irregularities from a closely-spaced sub-auroral scintillation array. , 2014, , .		0
66	Community-wide model validation study for systematic assessment of ionosphere models. , 2015, , .		0
67	Ionospheric-thermospheric state estimation with neutral wind data assimilation. , 2015, , .		0
68	Inverse modeling of ionospheric irregularities observed using GPS scintillations at Poker Flat, AK. , 2017, , .		0
69	Identifying E and F Region Irregularities with a Scintillation Auroral GPS Array. , 2018, , .		0
70	Auroral Ionospheric Irregularity Properties via Estimation and Inverse Modeling of GNSS Scintillations. , 2019, , .		0
71	A Night-time Ionospheric Localized Enhancement (NILE) During Extreme Storms. , 0, , .		0
72	Tomographic imaging of a large-scale travelling ionospheric disturbance during the Halloween storm of 2003. <i>Annales Geophysicae</i> , 2020, 38, 1149-1157.	1.6	0