

# Umberto Villante

## List of Publications by Year in descending order

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115  
papers

1,876  
citations

257450

24  
h-index

330143

37  
g-index

117  
all docs

117  
docs citations

117  
times ranked

1082  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | On Differentiating Multiple Types of ULF Magnetospheric Waves in Response to Solar Wind Periodic Density Structures. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .   | 2.4 | 13        |
| 2  | The Transmission of ULF Waves From the Solar Wind to the Magnetosphere: An Analysis of Some Critical Aspects. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 9, .   | 2.8 | 3         |
| 3  | Properties of Solar Wind Structures at Mercury's Orbit. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028281.   | 2.4 | 5         |
| 4  | Study of the Influence of the Solar Wind Energy on the Geomagnetic Activity for Space Weather Science. <i>Astrophysical Journal</i> , 2020, 896, 149.   | 4.5 | 11        |
| 5  | On the seasonal and solar cycle variation of the ULF fluctuations at low latitudes: A comparison with the ionospheric parameters. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2019, 190, 96-107.                                      | 1.6 | 3         |
| 6  | The Identification of Waves at Discrete Frequencies at the Geostationary Orbit: The Role of the Data Analysis Techniques and the Comparison With Solar Wind Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 1953-1968. | 2.4 | 11        |
| 7  | Comprehensive Analysis of the Geoeffective Solar Event of 21 June 2015: Effects on the Magnetosphere, Plasmasphere, and Ionosphere Systems. <i>Solar Physics</i> , 2017, 292, 1.  | 2.5 | 62        |
| 8  | The identification of solar wind waves at discrete frequencies and the role of the spectral analysis techniques. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 4905-4920.  | 2.4 | 11        |
| 9  | Comprehensive Analysis of the Geoeffective Solar Event of 21 June 2015: Effects on the Magnetosphere, Plasmasphere, and Ionosphere Systems. , 2017, , 225-280.  |     | 0         |
| 10 | On the transmission of waves at discrete frequencies from the solar wind to the magnetosphere and ground: A case study. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 380-396.   | 2.4 | 21        |
| 11 | Occurrence and characteristics of nighttime ULF waves at low latitude: The results of a comprehensive analysis. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 4300-4315.   | 2.4 | 7         |
| 12 | On the discrimination between magnetospheric and ionospheric contributions on the ground manifestation of sudden impulses. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 6674-6691.  | 2.4 | 21        |
| 13 | Recurrent flares in active region NOAA 11283. <i>Astronomy and Astrophysics</i> , 2015, 582, A55.   | 5.1 | 29        |
| 14 | Comment on "Statistical analysis of geosynchronous magnetic field perturbations near midnight during sudden commencements" by J. Park et al.. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3821-3823.                             | 2.4 | 1         |
| 15 | A comprehensive analysis of the occurrence and characteristics of midperiod ULF waves at low latitude. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1784-1802.  | 2.4 | 2         |
| 16 | Local changes in the total electron content immediately before the 2009 Abruzzo earthquake. <i>Advances in Space Research</i> , 2015, 55, 243-258.  | 2.6 | 21        |
| 17 | On the man-made contamination on ULF measurements: evidence for disturbances related to an electrified DC railway. <i>Annales Geophysicae</i> , 2014, 32, 1153-1161.  | 1.6 | 0         |
| 18 | The propagation of ULF waves from the Earth's foreshock region to ground: the case study of 15 February 2009. <i>Earth, Planets and Space</i> , 2014, 66, .   | 2.5 | 9         |

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|----|--|-----|-----------|
| 19 | On the propagation of sudden impulses through the magnetosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2014, 115-116, 2-6.   | 1.6 | 1         |
| 20 | Scaling characteristics of SEGMA magnetic field data around the Mw 6.3 Aquila earthquake. <i>Acta Geophysica</i> , 2013, 61, 311-337.  | 2.0 | 6         |
| 21 | Geomagnetic and solar wind fluctuations at discrete frequencies: A case study. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 218-231.   | 2.4 | 4         |
| 22 | Coherent transmission of upstream waves to polar latitudes through magnetotail lobes. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6955-6963.  | 2.4 | 8         |
| 23 | A case study of upstream wave transmission to the ground at polar and low latitudes. <i>Journal of Geophysical Research</i> , 2012, 117, .   | 3.3 | 20        |
| 24 | The 8 June 2000 ULF wave activity: A case study. <i>Journal of Geophysical Research</i> , 2012, 117, .   | 3.3 | 20        |
| 25 | Reply to Masci's comment on "Ultra Low Frequency (ULF) European multi station magnetic field analysis before and during the 2009 earthquake at L'Aquila regarding regional geotechnical information" by Prattes et al. (2011). <i>Natural Hazards and Earth System Sciences</i> , 2012, 12, 1721-1722. | 3.6 | 0         |
| 26 | The transmission of upstream waves to the magnetosphere: An analysis at widely separated ground stations. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.   | 3.3 | 10        |
| 27 | Ultra Low Frequency (ULF) European multi station magnetic field analysis before and during the 2009 earthquake at L'Aquila regarding regional geotechnical information. <i>Natural Hazards and Earth System Sciences</i> , 2011, 11, 1959-1968.  | 3.6 | 30        |
| 28 | Non-inductive components of electromagnetic signals associated with L'Aquila earthquake sequences estimated by means of inter-station impulse response functions. <i>Natural Hazards and Earth System Sciences</i> , 2011, 11, 1047-1055.  | 3.6 | 12        |
| 29 | Sudden impulses at geosynchronous orbit and at ground. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2011, 73, 61-76.  | 1.6 | 20        |
| 30 | Long period magnetospheric oscillations at discrete frequencies: The results of a multi-station analysis. <i>Advances in Space Research</i> , 2010, 46, 460-467.   | 2.6 | 5         |
| 31 | The 6 April 2009 earthquake at L'Aquila: a preliminary analysis of magnetic field measurements. <i>Natural Hazards and Earth System Sciences</i> , 2010, 10, 203-214.  | 3.6 | 18        |
| 32 | Ionospheric transients observed at mid-latitudes prior to earthquake activity in Central Italy. <i>Natural Hazards and Earth System Sciences</i> , 2010, 10, 1197-1208.  | 3.6 | 2         |
| 33 | Corrigendum to "ULF geomagnetic pulsations at different latitudes in Antarctica", published in <i>Ann. Geophys.</i> , 27, 3621-3629, 2009. <i>Annales Geophysicae</i> , 2010, 28, 2111-2111.   | 1.6 | 0         |
| 34 | Pc3 pulsations in the polar cap and at low latitude. <i>Journal of Geophysical Research</i> , 2010, 115, .   | 3.3 | 19        |
| 35 | ULF geomagnetic pulsations at different latitudes in Antarctica. <i>Annales Geophysicae</i> , 2009, 27, 3621-3629.   | 1.6 | 18        |
| 36 | Polarization pattern of low and mid-frequency magnetic pulsations in the polar cap: A comprehensive analysis at Terra Nova Bay (Antarctica). <i>Advances in Space Research</i> , 2009, 43, 1135-1142.  | 2.6 | 7         |

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|----|--|-----|-----------|
| 37 | A Comparative Analysis of Ground, Magnetospheric and Interplanetary Observations of Long Period Magnetic Oscillations. <i>Earth, Moon and Planets</i> , 2009, 104, 33-36.  | 0.6 | 0         |
| 38 | Monitoring the Dynamics of the Ionosphereâ€“Plasmasphere System by Ground-Based ULF Wave Observations. <i>Earth, Moon and Planets</i> , 2009, 104, 25-27.  | 0.6 | 1         |
| 39 | Analysis of geomagnetic sudden impulses at low latitudes. <i>Journal of Geophysical Research</i> , 2009, 114, .  | 3.3 | 12        |
| 40 | An analysis of sudden impulses at geosynchronous orbit. <i>Journal of Geophysical Research</i> , 2008, 113, .  | 3.3 | 36        |
| 41 | Solar flare effect preceding Halloween storm (28 October 2003): Results of a worldwide analysis. <i>Journal of Geophysical Research</i> , 2008, 113, .   | 3.3 | 13        |
| 42 | Long-period oscillations at discrete frequencies: A comparative analysis of ground, magnetospheric, and interplanetary observations. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.  | 3.3 | 21        |
| 43 | Solar activity dependence of geomagnetic field line resonance frequencies at low latitudes. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.   | 3.3 | 18        |
| 44 | Correction to â€œLong-period oscillations at discrete frequencies: A comparative analysis of ground, magnetospheric, and interplanetary observationsâ€•. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.                    | 3.3 | 0         |
| 45 | Do we need a surface wave approach to the magnetospheric resonances?. <i>Planetary and Space Science</i> , 2007, 55, 680-693.  | 1.7 | 6         |
| 46 | Experimental Aspects of Mid-Frequency Pulsations ( $f \sim 10$ â€“100 mHz) in the Southern Polar Cap. <i>Space Science Reviews</i> , 2006, 122, 107-117.   | 8.1 | 2         |
| 47 | ULF fluctuations of the geomagnetic field and ionospheric sounding measurements at low latitudes during the first CAWSES campaign. <i>Annales Geophysicae</i> , 2006, 24, 1455-1468.   | 1.6 | 16        |
| 48 | ULF Wave Magnetic Measurements by CHAMP Satellite and SEGMA Ground Magnetometer Array: Case Study of July 6, 2002. , 2005, , 395-400.  |     | 0         |
| 49 | A statistical analysis of low-frequency magnetic pulsations at cusp and cap latitudes in Antarctica. <i>Journal of Geophysical Research</i> , 2005, 110, .   | 3.3 | 24        |
| 50 | ULF geomagnetic pulsations in the southern polar cap: Simultaneous measurements near the cusp and the geomagnetic pole. <i>Journal of Geophysical Research</i> , 2005, 110, .  | 3.3 | 19        |
| 51 | A COMPARATIVE STUDY OF PROBABILITY DISTRIBUTION FUNCTIONS AND BURST LIFETIME DISTRIBUTIONS OF BS AND AE AT SOLAR MAXIMUM AND MINIMUM. , 2005, , 399-409.   |     | 1         |
| 52 | Some aspects of man-made contamination on ULF measurements. <i>Annales Geophysicae</i> , 2004, 22, 1335-1345.  | 1.6 | 7         |
| 53 | Some aspects of the geomagnetic response to solar wind pressure variations: a case study at low and middle latitudes. <i>Annales Geophysicae</i> , 2004, 22, 2053-2066.  | 1.6 | 6         |
| 54 | Some aspects of the interaction of interplanetary shocks with the Earth's magnetosphere: an estimate of the propagation time through the magnetosheath. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2004, 66, 337-341. | 1.6 | 23        |

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|----|--|-----|-----------|
| 55 | Ground/satellite signatures of field line resonance: A test of theoretical predictions. Journal of Geophysical Research, 2004, 109, .  | 3.3 | 42        |
| 56 | Some aspects of the low latitude geomagnetic response under different solar wind conditions*. Space Science Reviews, 2003, 107, 207-217.   | 8.1 | 2         |
| 57 | Geomagnetic field line resonances at low latitudes: Pulsation event study of 16 August 1993. Journal of Geophysical Research, 2002, 107, SMP 6-1.  | 3.3 | 16        |
| 58 | ULF Pc5-6 magnetic activity in the polar cap as observed along a geomagnetic meridian in Antarctica. Journal of Geophysical Research, 2002, 107, SMP 22-1-SMP 22-12.   | 3.3 | 26        |
| 59 | Geomagnetic sudden impulses at low latitude during northward interplanetary magnetic field conditions. Journal of Geophysical Research, 2001, 106, 21231-21236.  | 3.3 | 15        |
| 60 | Pc5 geomagnetic field fluctuations at discrete frequencies at a low latitude station. Annales Geophysicae, 2001, 19, 321-325.  | 1.6 | 36        |
| 61 | An analysis of Pc3 and Pc4 pulsations at Terra Nova Bay (Antarctica). Annales Geophysicae, 2000, 18, 1412-1421.  | 1.6 | 19        |
| 62 | Pc3 pulsations during variable IMF conditions. Annales Geophysicae, 1999, 17, 490-496.   | 1.6 | 7         |
| 63 | The Earth's passage of the April 11, 1997 coronal ejecta: geomagnetic field fluctuations at high and low latitude during northward interplanetary magnetic field conditions. Annales Geophysicae, 1999, 17, 1245-1250. | 1.6 | 12        |
| 64 | Polarization pattern of low-frequency geomagnetic field fluctuations (0.8-3.6 mHz) at high and low latitude. Journal of Geophysical Research, 1999, 104, 305-310.  | 3.3 | 15        |
| 65 | Geomagnetic response at low latitude to continuous solar wind pressure variations during northward interplanetary magnetic field. Journal of Geophysical Research, 1999, 104, 19923-19930.                             | 3.3 | 31        |
| 66 | Surface and underground measurements of geomagnetic variations in the micropulsations band. Geophysical Prospecting, 1998, 46, 121-140.  | 1.9 | 5         |
| 67 | Geomagnetic field variations at low and high latitude during the January 10-11, 1997 magnetic cloud. Geophysical Research Letters, 1998, 25, 2593-2596.  | 4.0 | 23        |
| 68 | An analysis of working days contamination in micropulsation measurements. Annals of Geophysics, 1998, 41, .  | 1.0 | 2         |
| 69 | Some evidence of ground power enhancements at frequencies of global magnetospheric modes at low latitude. Annales Geophysicae, 1997, 15, 17-23.  | 1.6 | 49        |
| 70 | Solar cycle variation of the dominant frequencies of Pc3 geomagnetic pulsations at L = 1.6. Geophysical Research Letters, 1996, 23, 1505-1508.   | 4.0 | 42        |
| 71 | Observations of bow shock motion during times of variable solar wind conditions. Journal of Geophysical Research, 1996, 101, 11107-11123.  | 3.3 | 19        |
| 72 | Pc3 activity at low geomagnetic latitudes: A comparison with solar wind observations. Planetary and Space Science, 1992, 40, 1399-1408.  | 1.7 | 5         |

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|----|---|-----|-----------|
| 73 | Solar-wind controlled pulsations at low latitudes. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1992, 15, 575-586.  | 0.2 | 0         |
| 74 | New remarks on the magnetic-field regime in the distant geomagnetic tail: Pioneer 8. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1992, 15, 587-597.                    | 0.2 | 0         |
| 75 | A study of the relationship between micropulsations and solar wind properties. Journal of Geophysical Research, 1991, 96, 3465-3470.  | 3.3 | 17        |
| 76 | Relationship between field line resonance at low geomagnetic latitudes and solar wind structures. Geophysical Research Letters, 1991, 18, 1501-1503.                            | 4.0 | 4         |
| 77 | An analysis of power spectral indices in the micropulsation frequency range at different ground stations. Planetary and Space Science, 1991, 39, 975-982.                       | 1.7 | 2         |
| 78 | Micropulsation measurements at low latitudes. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1990, 13, 93-102.  | 0.2 | 3         |
| 79 | A spherical harmonics filter for solar oscillations research. Solar Physics, 1990, 125, 233-240.  | 2.5 | 1         |
| 80 | An analysis of micropulsation events at a low-latitude station during 1985. Planetary and Space Science, 1989, 37, 767-773.   | 1.7 | 26        |
| 81 | Hydromagnetic (ULF) power at separated sites ( $\sim 90^\circ$ ) at mid- to low-latitudes. Planetary and Space Science, 1989, 37, 1385-1391.                                    | 1.7 | 1         |
| 82 | Comment on "Periodicities in the interplanetary magnetic field polarity" by A. L. C. Gonzalez and W. D. Gonzalez. Journal of Geophysical Research, 1988, 93, 4141-4141.         | 3.3 | 4         |
| 83 | In-situ observations of the latitudinal gradients of the solar wind parameters during 1976 and 1977. Solar Physics, 1986, 104, 431-445.   | 2.5 | 58        |
| 84 | Spectral analysis of the geomagnetic activity index $A_p$ during different IMF conditions (1947-1978). Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1986, 9, 1085-1092. | 0.2 | 4         |
| 85 | Evidence for long period Alfvén waves in the inner solar system. Journal of Geophysical Research, 1985, 90, 4373-4377.  | 3.3 | 129       |
| 86 | Comment on "A reexamination of rotational and tangential discontinuities in the solar wind" by M. Neugebauer et al.. Journal of Geophysical Research, 1985, 90, 5363-5363.      | 3.3 | 1         |
| 87 | Preliminary measurements of geomagnetic micropulsations at L'Aquila, Italy. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1984, 7, 1-8.                                  | 0.2 | 18        |
| 88 | On the temperature of $\pm$ -particles and heavy ions in the solar wind. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1984, 7, 604-610.                                 | 0.2 | 0         |
| 89 | A comparison between MEM and FFT for the spectral analysis of geophysical signals. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1984, 7, 611-620.                       | 0.2 | 0         |
| 90 | Geomagnetic turbulence at L'Aquila (Italy): Preliminary results of a variance analysis. Il Nuovo Cimento Della Societ  Italiana Di Fisica C, 1984, 7, 621-631.                  | 0.2 | 0         |

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|-----|---|-----|-----------|
| 91  | Maximum entropy spectral analysis of artificial sinusoidal signals. <i>Journal of Geophysical Research</i> , 1984, 89, 351-356.   | 3.3 | 13        |
| 92  | A facility for measuring geomagnetic micropulsations at l'Aquila, Italy. <i>Il Nuovo Cimento Della Societ  Italiana Di Fisica C</i> , 1983, 6, 40-48.                                     | 0.2 | 9         |
| 93  | The latitudinal dependence of the IMF polarity during 1975 1981. <i>Lettere Al Nuovo Cimento Rivista Internazionale Della Societ  Italiana Di Fisica</i> , 1983, 36, 313-315.             | 0.4 | 0         |
| 94  | A statistical study of MHD discontinuities in the inner solar system: Helios 1 and 2. <i>Solar Physics</i> , 1983, 83, 349-365.   | 2.5 | 44        |
| 95  | The IMF sector pattern through the solar minimum: Two spacecraft observations during 1974 1978. <i>Journal of Geophysical Research</i> , 1982, 87, 249-253.                               | 3.3 | 13        |
| 96  | Structure of current sheets in the sector boundaries: Helios 2 observations during early 1976. <i>Journal of Geophysical Research</i> , 1982, 87, 607-612.                                | 3.3 | 29        |
| 97  | Helios 1+helios 2: a summary of IMF observations performed in the inner solar system during 1975 1981. <i>Il Nuovo Cimento Della Societ  Italiana Di Fisica C</i> , 1982, 5, 497-506.     | 0.2 | 3         |
| 98  | The radial evolution of the IMF fluctuations: A comparison with theoretical models. <i>Solar Physics</i> , 1982, 81, 367-374.   | 2.5 | 30        |
| 99  | On the role of Alfv nic fluctuations in the inner solar system. <i>Journal of Geophysical Research</i> , 1980, 85, 6869-6873.   | 3.3 | 41        |
| 100 | An extended investigation of Helios 1 and 2 observations: The interplanetary magnetic field between 0.3 and 1 AU. <i>Solar Physics</i> , 1979, 63, 411.                                   | 2.5 | 32        |
| 101 | D.c. Magnetic-field observations at the Earth's bow shock. <i>Il Nuovo Cimento Della Societ  Italiana Di Fisica C</i> , 1979, 2, 661-680.   | 0.2 | 0         |
| 102 | The shape and location of the sector boundary surface in the inner solar system. <i>Journal of Geophysical Research</i> , 1979, 84, 6641-6648.  | 3.3 | 61        |
| 103 | IMF structures between 0.3 and 1 A.U. A comparison of two-spacecraft observations. <i>Il Nuovo Cimento Della Societ  Italiana Di Fisica C</i> , 1978, 1, 539-541.                         | 0.2 | 1         |
| 104 | IMF structures between 0.3 and 1 A.U. A comparison of two-spacecraft observations. <i>Il Nuovo Cimento Della Societ  Italiana Di Fisica C</i> , 1978, 1, 261-274.                         | 0.2 | 4         |
| 105 | The large-scale structure of the interplanetary magnetic field between 1 and 0.3 AU during the primary mission of Helios 1. <i>Journal of Geophysical Research</i> , 1978, 83, 5161-5166. | 3.3 | 43        |
| 106 | Magnetic fields and flows between 1 and 0.3 AU during the primary mission of Helios 1. <i>Journal of Geophysical Research</i> , 1978, 83, 5167-5174.                                      | 3.3 | 56        |
| 107 | An overview by pioneers observations of the distant geomagnetic tail. <i>Space Science Reviews</i> , 1977, 20, 123-143.   | 8.1 | 11        |
| 108 | Neutral sheet observations at 1000RE. <i>Journal of Geophysical Research</i> , 1976, 81, 212-215.   | 3.3 | 25        |

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|-----|--|-----|-----------|
| 109 | Evidence for a bow shock structure at $\approx 1/4$ 400RE: Pioneer 7. Journal of Geophysical Research, 1976, 81, 1441-1446.                                    | 3.3 | 7         |
| 110 | Some remarks on the structure of the distant neutral sheet. Planetary and Space Science, 1975, 23, 723-726.  | 1.7 | 7         |
| 111 | Pioneer 7 observations of plasma flow and field reversal regions in the distant geomagnetic tail. Journal of Geophysical Research, 1975, 80, 1238-1244.        | 3.3 | 58        |
| 112 | Double streams of protons in the distant geomagnetic tail. Journal of Geophysical Research, 1975, 80, 1245-1247.   | 3.3 | 17        |
| 113 | Magneto-pause observations at large geocentric distances. Lettere Al Nuovo Cimento Rivista Internazionale Della SocietÀ Italiana Di Fisica, 1974, 11, 557-560. | 0.4 | 3         |
| 114 | Variations of the occurrence rate of discontinuities in the interplanetary magnetic field. Journal of Geophysical Research, 1973, 78, 8011-8022.               | 3.3 | 79        |
| 115 | Multiple crossings of the Earth's bow shock at large geocentric distances. Journal of Geophysical Research, 1971, 76, 5970-5977.                               | 3.3 | 21        |