# Carla Braitenberg

List of Publications by Year
in descending order

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| 97 | 2,863 | 172207 | 182168 |
|---|---|---|---|
| papers | citations | 29 h-index | 51 g-index |

| 107 | 107 | 107 | 2419 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Earth's Free Oscillations Excited by the 26 December 2004 Sumatra-Andaman Earthquake. Science, 2005, 308, 1139-1144. | 6.0 | 231 |
| 2 | Holocene relative sea-level changes and vertical movements along the Italian and Istrian coastlines. Quaternary International, 2009, 206, 102-133. | 0.7 | 202 |
| 3 | Basement structures from satellite-derived gravity field: South China Sea ridge. Journal of Geophysical Research, 2006, 111, n/a-n/a. | 3.3 | 157 |
| 4 | Tesseroids: Forward-modeling gravitational fields in spherical coordinates. Geophysics, 2016, 81, F41-F48. | 1.4 | 134 |
| 5 | Geometry of orientation columns in the visual cortex. Biological Cybernetics, 1979, 33, 179-186. | 0.6 | 118 |
| 6 | Spatial variations of flexure parameters over the Tibetâ€“Quinghai plateau. Earth and Planetary Science Letters, 2003, 205, 211-224. | 1.8 | 111 |
| 7 | Moho undulations beneath Tibet from GRACE-integrated gravity data. Geophysical Journal International, 2007, 170, 971-985. | 1.0 | 92 |
| 8 | The gravity and isostatic Moho undulations in Qinghaiâ€“Tibet plateau. Journal of Geodynamics, 2000, 30, 489-505. | 0.7 | 90 |
| 9 | Inverse modelling of elastic thickness by convolution method â€“ the eastern Alps as a case example. Earth and Planetary Science Letters, 2002, 202, 387-404. | 1.8 | 83 |
| 10 | Science and User Needs for Observing Global Mass Transport to Understand Global Change and to Benefit Society. Surveys in Geophysics, 2015, 36, 743-772. | 2.1 | 79 |
| 11 | GOCE satellite derived gravity and gravity gradient corrected for topographic effect in the South Central Andes region. Geophysical Journal International, 2012, 190, 941-959. | 1.0 | 61 |
| 12 | Forward and inverse modelling of gravity revealing insight into crustal structures of the Eastern Alps. Tectonophysics, 2001, 337, 191-208. | 0.9 | 58 |
| 13 | A new analytical solution estimating the flexural rigidity in the Central Andes. Geophysical Journal International, 2007, 169, 789-794. | 1.0 | 57 |
| 14 | Explaining the thick crust in ParanÃ¡ basin, Brazil, with satellite GOCE gravity observations. Journal of South American Earth Sciences, 2013, 45, 209-223. | 0.6 | 51 |
| 15 | Exploration of tectonic structures with GOCE in Africa and across-continents. International Journal of Applied Earth Observation and Geoinformation, 2015, 35, 88-95. | 1.4 | 50 |
| 16 | Insights into the lithospheric structure and tectonic setting of the Barents Sea region from isostatic considerations. Geophysical Journal International, 2007, 171, 1390-1403. | 1.0 | 48 |
| 17 | New insights into the basement structure of the West Siberian Basin from forward and inverse modeling of GRACE satellite gravity data. Journal of Geophysical Research, 2009, 114, . | 3.3 | 48 |
| 18 | The enigmatic Chad lineament revisited with global gravity and gravity-gradient fields. Geological Society Special Publication, 2011, 357, 329-341. | 0.8 | 46 |

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|---|---|---|---|
| 19 | Spectral and classical methods in the evaluation of Moho undulations from gravity data: The NE Italian Alps and isostasy. Journal of Geodynamics, 1997, 23, 5-22. | 0.7 | 45 |
| 20 | The lithospheric density structure of the Eastern Alps. Tectonophysics, 2006, 414, 145-155. | 0.9 | 45 |
| 21 | GOCE derived vertical gravity gradient delineates great earthquake rupture zones along the Chilean margin. Tectonophysics, 2014, 622, 198-215. | 0.9 | 44 |
| 22 | Hydrologically induced slope deformations detected by GPS and clinometric surveys in the Cansiglio Plateau, southern Alps. Earth and Planetary Science Letters, 2015, 419, 134-142. | 1.8 | 43 |
| 23 | Measurements and interpretations of tiltâ€“strain gauges in seismically active areas. Earth-Science Reviews, 1999, 47, 151-187. | 4.0 | 40 |
| 24 | Geophysical constraints on the link between cratonization and orogeny: Evidence from the Tibetan Plateau and the North China Craton. Earth-Science Reviews, 2014, 130, 1-48. | 4.0 | 40 |
| 25 | Moho topography, ranges and folds of Tibet by analysis of global gravity models and GOCE data. Scientific Reports, 2015, 5, 11681. | 1.6 | 39 |
| 26 | Magnetotelluric deep soundings, gravity and geoid in the south SÃ£o Francisco craton: Geophysical indicators of cratonic lithosphere rejuvenation and crustal underplating. Earth and Planetary Science Letters, 2010, 297, 423-434. | 1.8 | 37 |
| 27 | Crustal density structure from 3D gravity modeling beneath Himalaya and Lhasa blocks, Tibet. Journal of Asian Earth Sciences, 2013, 78, 301-317. | 1.0 | 33 |
| 28 | Threeâ€dimensional fold structure of the Tibetan Moho from GRACE gravity data. Geophysical Research Letters, 2009, 36, . | 1.5 | 32 |
| 29 | Sea level variability and trends in the Adriatic Sea in 1993â€“2008 from tide gauges and satellite altimetry. Physics and Chemistry of the Earth, 2012, 40-41, 47-58. | 1.2 | 31 |
| 30 | Mutual evaluation of global gravity models (EGM2008 and GOCE) and terrestrial data in Amazon Basin, Brazil. Geophysical Journal International, 2013, 195, 870-882. | 1.0 | 31 |
| 31 | The very-broad-band long-base tiltmeters of Grotta Gigante (Trieste, Italy): Secular term tilting and the great Sumatra-Andaman islands earthquake of December 26, 2004. Journal of Geodynamics, 2006, 41, 164-174. | 0.7 | 30 |
| 32 | New gravity maps of the Eastern Alps and significance for the crustal structures. Tectonophysics, 2006, 414, 127-143. | 0.9 | 28 |
| 33 | New evidence about the subduction of the CopiapÃ³ ridge beneath South America, and its connection with the Chilean-Pampean flat slab, tracked by satellite GOCE and EGM2008 models. Journal of Geodynamics, 2015, 91, 65-88. | 0.7 | 28 |
| 34 | The GOCE Estimated Moho Beneath the Tibetan Plateau and Himalaya. International Association of Geodesy Symposia, 2014, , 391-397. | 0.2 | 27 |
| 35 | Gravity inversion in Qinghai-Tibet Plateau. Physics and Chemistry of the Earth, 2000, 25, 381-386. | 0.6 | 26 |
| 36 | Geodetic and hydrological aspects of the Merano earthquake of 17 July 2001. Journal of Geodynamics, 2005, 39, 317-336. | 0.7 | 25 |

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| 37 | Interpretation of gravity data by the continuous wavelet transform: The case of the Chad lineament (North-Central Africa). Journal of Applied Geophysics, 2013, 90, 62-70. | 0.9 | 25 |
| 38 | The buried shape of an alpine valley from gravity surveys, seismic and ambient noise analysis. Geophysical Journal International, 2010, 180, 715-733. | 1.0 | 24 |
| 39 | The GRACEâ€satellite gravity and geoid fields in analysing largeâ€scale, cratonic or intracratonic basins. Geophysical Prospecting, 2009, 57, 559-571. | 1.0 | 23 |
| 40 | MOCASS: A Satellite Mission Concept Using Cold Atom Interferometry for Measuring the Earth Gravity Field. Surveys in Geophysics, 2019, 40, 1029-1053. | 2.1 | 23 |
| 41 | Gravity for Detecting Caves: Airborne and Terrestrial Simulations Based on a Comprehensive Karstic Cave Benchmark. Pure and Applied Geophysics, 2016, 173, 1243-1264. | 0.8 | 21 |
| 42 | Joint Gravity and Isostatic Analysis for Basement Studies â€“ A Novel Tool. , 2007, , . | | 20 |
| 43 | Estimating the hydrologic induced signal in geodetic measurements with predictive filtering methods. Geophysical Research Letters, 1999, 26, 775-778. | 1.5 | 19 |
| 44 | Archean crust and metallogenic zones in the Amazonian Craton sensed by satellite gravity data. Scientific Reports, 2019, 9, 2565. | 1.6 | 19 |
| 45 | The Congo Basin: Stratigraphy and subsurface structure defined by regional seismic reflection, refraction and well data. Global and Planetary Change, 2021, 198, 103407. | 1.6 | 18 |
| 46 | Gradients from GOCE reveal gravity changes before Pisagua MwÂ=Â8.2 and Iquique MwÂ=Â7.7 large megathrust earthquakes. Journal of South American Earth Sciences, 2015, 64, 273-287. | 0.6 | 16 |
| 47 | Comparative Analysis of the Free Oscillations Generated by the Sumatra- Andaman Islands 2004 and the Chile 1960 Earthquakes. Bulletin of the Seismological Society of America, 2007, 97, S6-S17. | 1.1 | 15 |
| 48 | A Comparative Analysis of Seismological and Gravimetric Crustal Thicknesses below the Andean Region with Flat Subduction of the Nazca Plate. International Journal of Geophysics, 2009, 2009, 1-8. | 0.4 | 14 |
| 49 | Vertical crustal motions from differential tide gauge observations and satellite altimetry in southern Italy. Journal of Geodynamics, 2011, 51, 233-244. | 0.7 | 14 |
| 50 | Sardinia Coastal Uplift and Volcanism. Pure and Applied Geophysics, 2009, 166, 1369-1402. | 0.8 | 13 |
| 51 | Lithosphere density structure beneath the eastern margin of the Tibetan Plateau and its surrounding areas derived from GOCE gradients data. Geodesy and Geodynamics, 2017, 8, 147-154. | 1.0 | 13 |
| 52 | Non-random spectral components in the seismicity of NE Italy. Earth and Planetary Science Letters, 2000, 179, 379-390. | 1.8 | 12 |
| 53 | New insights into the Andean crustal structure between 32Â° and 34Â°S from GOCE satellite gravity data and EGM2008 model. Geological Society Special Publication, 2015, 399, 183-202. | 0.8 | 12 |
| 54 | Interference of tectonic signals in subsurface hydrologic monitoring through gravity and GPS due to mountain building. Global and Planetary Change, 2018, 167, 148-159. | 1.6 | 12 |

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| 55 | Mass variation observing system by high low inter-satellite links (MOBILE) â€“ a new concept for sustained observation of mass transport from space. Journal of Geodetic Science, 2019, 9, 48-58. | 0.5 | 12 |
| 56 | The first pan-Alpine surface-gravity database, a modern compilation that crosses frontiers. Earth System Science Data, 2021, 13, 2165-2209. | 3.7 | 12 |
| 57 | Terrain uplift due to natural hydrologic overpressure in karstic conduits. Scientific Reports, 2019, 9, 3934. | 1.6 | 11 |
| 58 | Radon monitoring in a cave of North-Eastern Italy. Physics and Chemistry of the Earth, 1998, 23, 949-952. | 0.3 | 10 |
| 59 | Analysis of vertical movements in eastern Sicily and southern Calabria (Italy) through geodetic leveling data. Journal of Geodynamics, 2013, 66, 1-12. | 0.7 | 10 |
| 60 | Laser-scan and gravity joint investigation for subsurface cavity exploration â€” The Grotta Gigante benchmark. Geophysics, 2015, 80, B83-B94. | 1.4 | 10 |
| 61 | A quantitative approach to the loading rate of seismogenic sources in Italy. Geophysical Journal International, 2018, 213, 2096-2111. | 1.0 | 9 |
| 62 | The deforming and rotating Earth â€“ A review of the 18th International Symposium on Geodynamics and Earth Tide, Trieste 2016. Geodesy and Geodynamics, 2018, 9, 187-196. | 1.0 | 9 |
| 63 | The study of karstic aquifers by geodetic measurements in Bus de la Genziana station â€“ Cansiglio plateau (Northeastern Italy). Acta Carsologica, 2012, 40, . | 0.3 | 9 |
| 64 | Metamorphic CO2 production in calc-silicate rocks from the eastern Himalaya. Italian Journal of Geosciences, 2017, 136, 39-49. | 0.4 | 8 |
| 65 | Cansiglio Karst Plateau: 10 Years of Geodeticâ€“Hydrological Observations in Seismically Active Northeast Italy. Pure and Applied Geophysics, 2018, 175, 1765-1781. | 0.8 | 8 |
| 66 | Sensitivity of gravity and topography regressions to earth and planetary structures. Tectonophysics, 2020, 774, 228299. | 0.9 | 8 |
| 67 | The Friuli (NE-Italy) tilt/strain gauges and short term observations. Annals of Geophysics, 1999, 42, . | 0.5 | 8 |
| 68 | Reviewing megathrust slip behavior for recent Mwâ€¯>â€¯8.0 earthquakes along the Peru-Chilean margin from satellite GOCE gravity field derivatives. Tectonophysics, 2019, 769, 228188. | 0.9 | 7 |
| 69 | Geodetic measurements at the northern border of the Adria plate. Journal of Geodynamics, 2001, 32, 267-286. | 0.7 | 6 |
| 70 | Gravity modeling of the Alpine lithosphere affected by magmatism based on seismic tomography. Solid Earth, 2021, 12, 539-561. | 1.2 | 6 |
| 71 | Geophysical Challenges for Future Satellite Gravity Missions: Assessing the Impact of MOCASS Mission. Pure and Applied Geophysics, 2021, 178, 2223-2240. | 0.8 | 6 |
| 72 | Gravity as a tool to improve the hydrologic mass budget in karstic areas. Hydrology and Earth System Sciences, 2021, 25, 6001-6021. | 1.9 | 6 |

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| 73 | Karst caves and hydrology between geodesy and archeology: Field trip notes. Geodesy and Geodynamics, 2018, 9, 262-269. | 1.0 | 5 |
| 74 | Geodynamics and Earth Tides Observations from Global to Micro Scale: Introduction. Pure and Applied Geophysics, 2018, 175, 1595-1597. | 0.8 | 5 |
| 75 | A geothermal application for GOCE satellite gravity data: modelling the crustal heat production and lithospheric temperature field in Central Europe. Geophysical Journal International, 2019, 219, 1008-1031. | 1.0 | 5 |
| 76 | Gravimetry and petrophysics for defining the intracratonic and rift basins of the Western-Central Africa zone. Geophysics, 2021, 86, B369-B388. | 1.4 | 5 |
| 77 | Interpretation of Long-Period Magnetotelluric Soundings In Friuli (North-East Italy) and the Electrical Characteristic of the Lithosphere. Geophysical Journal International, 1994, 117, 196-204. | 1.0 | 4 |
| 78 | The Congo Basin: Subsurface structure interpreted using potential field data and constrained by seismic data. Global and Planetary Change, 2021, 205, 103611. | 1.6 | 4 |
| 79 | A Grip on Geological Units with GOCE. International Association of Geodesy Symposia, 2014, , 309-317. | 0.2 | 3 |
| 80 | Strain Accumulation and Release of the Gorkha, Nepal, Earthquake (M w 7.8, 25 April 2015). Pure and Applied Geophysics, 2018, 175, 1909-1923. | 0.8 | 3 |
| 81 | Recurrence of Fault Valve Behavior in a Continental Collision Area: Evidence From Tilt/Strain Measurements in Northern Adria. Frontiers in Earth Science, 2021, 9, . | 0.8 | 3 |
| 82 | Thickness of sediments in the Congo basin based on the analysis of decompensative gravity anomalies. Journal of African Earth Sciences, 2021, 179, 104201. | 0.9 | 3 |
| 83 | Detecting the Elevated Crust to Mantle Section in the Kohistan-Ladakh Arc, Himalaya, from GOCE Observations. International Association of Geodesy Symposia, 2014, , 299-307. | 0.2 | 3 |
| 84 | Bathymetry and Crustal Thickness Variations from Gravity Inversion and Flexural Isostasy. International Association of Geodesy Symposia, 2003, , 143-149. | 0.2 | 3 |
| 85 | Illustrating the superposition of signals recorded by the Grotta Gigante pendulums with musical analogues. Acta Carsologica, 2014, 43, . | 0.3 | 2 |
| 86 | Decoupled Lithospheric Folding, Lower Crustal Flow Channels, and the Growth of Tibetan Plateau. Geophysical Research Letters, 2022, 49, . | 1.5 | 2 |
| 87 | Editorial note for the Geodesy and Geodynamics journal special issue. Geodesy and Geodynamics, 2018, 9, 183-186. | 1.0 | 1 |
| 88 | Mapping New IOCG Mineral Systems in Brazil: The Vale do CuraÃ§Ã¡ and Riacho do Pontal Copper Districts. Minerals (Basel, Switzerland), 2020, 10, 1074. | 0.8 | 1 |
| 89 | Tilting and Horizontal Movement at and across the Northern Border of the Adria Plate. , 2006, , 129-137. | | 1 |
| 90 | The Peru-Chile Margin from Global Gravity Field Derivatives. Springer Earth System Sciences, 2018, , 59-79. | 0.1 | 0 |

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| 91 | Geodetic Pendulums, Horizontal Ultra Broad Band. Encyclopedia of Earth Sciences Series, 2021, , 447-452. | 0.1 | 0 |
| 92 | PALEOSTRIPv1.0 â€“ a user-friendly 3D backtracking software to reconstruct paleo-bathymetries. Geoscientific Model Development, 2021, 14, 5285-5305. | 1.3 | 0 |
| 93 | Modelagem GravimÃ©trica direta 3-D do SE do crÃ¡ton SÃ£o Francisco. , 2007, , . | | 0 |
| 94 | Sardinia Coastal Uplift and Volcanism. , 2009, , 1369-1402. | | 0 |
| 95 | Geodetic Pendulums, Horizontal Ultra Broad Band. Encyclopedia of Earth Sciences Series, 2011, , 336-340. | 0.1 | 0 |
| 96 | The iterative signal enhancing method for determining magnetotelluric impedance. Annals of Geophysics, 1996, 39, . | 0.5 | 0 |
| 97 | Illustrating the superposition of signals recorded by the Grotta Gigante pendulums with musical analogues. Acta Carsologica, 2014, 43, . | 0.3 | 0 |