

# Marta Perez-Gussinye

## List of Publications by Year in descending order

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37  
papers

2,676  
citations

218677  
26  
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37  
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37  
all docs

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docs citations

37  
times ranked

1997  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Rift migration explains continental margin asymmetry and crustal hyper-extension. <i>Nature Communications</i> , 2014, 5, 4014.   | 12.8 | 272       |
| 2  | Rheological evolution during extension at nonvolcanic rifted margins: Onset of serpentinization and development of detachments leading to continental breakup. <i>Journal of Geophysical Research</i> , 2001, 106, 3961-3975.                     | 3.3  | 264       |
| 3  | Sequential faulting explains the asymmetry and extension discrepancy of conjugate margins. <i>Nature</i> , 2010, 468, 294-299.  | 27.8 | 192       |
| 4  | The long-term strength of Europe and its implications for plate-forming processes. <i>Nature</i> , 2005, 436, 381-384.  | 27.8 | 143       |
| 5  | Effective elastic thickness of Africa and its relationship to other proxies for lithospheric structure and surface tectonics. <i>Earth and Planetary Science Letters</i> , 2009, 287, 152-167.  | 4.4  | 142       |
| 6  | The role of crustal quartz in controlling Cordilleran deformation. <i>Nature</i> , 2011, 471, 353-357.  | 27.8 | 141       |
| 7  | Chilean flat slab subduction controlled by overriding plate thickness and trench rollback. <i>Geology</i> , 2012, 40, 35-38.  | 4.4  | 139       |
| 8  | Rifted margin architecture and crustal rheology: Reviewing Iberia-Newfoundland, Central South Atlantic, and South China Sea. <i>Marine and Petroleum Geology</i> , 2017, 79, 257-281.   | 3.3  | 138       |
| 9  | Mechanisms of extension at nonvolcanic margins: Evidence from the Galicia interior basin, west of Iberia. <i>Journal of Geophysical Research</i> , 2003, 108, .   | 3.3  | 133       |
| 10 | The rift to drift transition at non-volcanic margins: Insights from numerical modelling. <i>Earth and Planetary Science Letters</i> , 2006, 244, 458-473.   | 4.4  | 111       |
| 11 | On the recovery of effective elastic thickness using spectral methods: Examples from synthetic data and from the Fennoscandian Shield. <i>Journal of Geophysical Research</i> , 2004, 109, .  | 3.3  | 101       |
| 12 | Effective elastic thickness of South America and its implications for intracontinental deformation. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.   | 2.5  | 100       |
| 13 | Detachment faulting, mantle serpentinization, and serpentinite- mud volcanism beneath the Porcupine Basin, southwest of Ireland. <i>Geology</i> , 2001, 29, 587.  | 4.4  | 77        |
| 14 | Fault-controlled hydration of the upper mantle during continental rifting. <i>Nature Geoscience</i> , 2016, 9, 384-388.   | 12.9 | 75        |
| 15 | Effective elastic thickness variations along the Andean margin and their relationship to subduction geometry. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .  | 2.5  | 69        |
| 16 | Lithospheric extension from rifting to continental breakup at magma-poor margins: rheology, serpentinisation and symmetry. <i>International Journal of Earth Sciences</i> , 2007, 96, 1033-1046.  | 1.8  | 50        |
| 17 | Serpentinization and magmatism during extension at non-volcanic margins: the effect of initial lithospheric structure. <i>Geological Society Special Publication</i> , 2001, 187, 551-576.  | 1.3  | 47        |
| 18 | Spatial variations of the effective elastic thickness, $T_e$ , using multitaper spectral estimation and wavelet methods: Examples from synthetic data and application to South America. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, . | 2.5  | 47        |

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|----|---|-----|-----------|
| 19 | A tectonic model for hyperextension at magma-poor rifted margins: an example from the West Iberia–Newfoundland conjugate margins. <i>Geological Society Special Publication</i> , 2013, 369, 403-427.   | 1.3 | 46        |
| 20 | Thermomechanical Implications of Sediment Transport for the Architecture and Evolution of Continental Rifts and Margins. <i>Tectonics</i> , 2019, 38, 641-665.  | 2.8 | 42        |
| 21 | Lower Crustal Strength Controls on Melting and Serpentinization at Magma-Poor Margins: Potential Implications for the South Atlantic. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 4538-4557.                                      | 2.5 | 41        |
| 22 | Interrelation between rifting, faulting, sedimentation, and mantle serpentinization during continental margin formation—including examples from the Norwegian Sea. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 4351-4369.         | 2.5 | 35        |
| 23 | Lithospheric Strength and Rift Migration Controls on Synrift Stratigraphy and Breakup Unconformities at Rifted Margins: Examples From Numerical Models, the Atlantic and South China Sea Margins. <i>Tectonics</i> , 2020, 39, e2020TC006255. | 2.8 | 33        |
| 24 | Decoupled crust-mantle accommodation of Africa-Eurasia convergence in the NW Moroccan margin. <i>Journal of Geophysical Research</i> , 2011, 116, .   | 3.3 | 30        |
| 25 | Spatial variations of effective elastic thickness of the lithosphere in Central America and surrounding regions. <i>Earth and Planetary Science Letters</i> , 2014, 391, 55-66.   | 4.4 | 29        |
| 26 | Multitaper spectral method to estimate the elastic thickness of South China: Implications for intracontinental deformation. <i>Geoscience Frontiers</i> , 2014, 5, 193-203.   | 8.4 | 28        |
| 27 | The continental extension discrepancy and anomalous subsidence pattern in the western Qiongdongnan Basin, South China Sea. <i>Earth and Planetary Science Letters</i> , 2018, 501, 180-191.   | 4.4 | 28        |
| 28 | Slip along the Sultanhan Fault in Central Anatolia from deformed Pleistocene shorelines of palaeo-lake Konya and implications for seismic hazards in low-strain regions. <i>Geophysical Journal International</i> , 2017, 209, 1431-1454.     | 2.4 | 17        |
| 29 | Causes and consequences of asymmetric lateral plume flow during South Atlantic rifting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 27877-27883.                                      | 7.1 | 17        |
| 30 | A new free-surface stabilization algorithm for geodynamical modelling: Theory and numerical tests. <i>Physics of the Earth and Planetary Interiors</i> , 2015, 246, 41-51.  | 1.9 | 16        |
| 31 | Serpentinization-Driven H <sub>2</sub> Production From Continental Break-Up to Mid-Ocean Ridge Spreading: Unexpected High Rates at the West Iberia Margin. <i>Frontiers in Earth Science</i> , 2021, 9, .                                     | 1.8 | 15        |
| 32 | Geometry of extensional faults developed at slow-spreading centres from pre-stack depth migration of seismic reflection data in the Central Atlantic (Canary Basin). <i>Geophysical Journal International</i> , 2004, 159, 591-606.           | 2.4 | 14        |
| 33 | Global Whole Lithosphere Isostasy: Implications for Surface Elevations, Structure, Strength, and Densities of the Continental Lithosphere. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009150.                             | 2.5 | 12        |
| 34 | Lateral coexistence of ductile and brittle deformation shapes magma-poor distal margins: An example from the West Iberia-Newfoundland margins. <i>Earth and Planetary Science Letters</i> , 2022, 578, 117288.                                | 4.4 | 12        |
| 35 | The Role of Crustal Strength in Controlling Magmatism and Melt Chemistry During Rifting and Breakup. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 534-550.   | 2.5 | 11        |
| 36 | Oceanward rift migration during formation of Santos–Benguela ultra-wide rifted margins. <i>Geological Society Special Publication</i> , 2023, 524, 65-91.   | 1.3 | 5         |

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|----|--|-----|-----------|
| 37 | KineDyn: Thermomechanical forward method for validation of seismic interpretations and investigation of dynamics of rifts and rifted margins. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 317, 106748. | 1.9 | 4         |