# Ronald T Van Balen

List of Publications by Year
in descending order



| 92 | 3,055 | 117453 | 174990 |
|---|---|---|---|
| papers | citations | 34 h-index | 52 g-index |

| 93 | 93 | 93 | 2583 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Late Pleistocene evolution of the Rhine-Meuse system in the southern North Sea basin: imprints of climate change, sea-level oscillation and glacio-isostacy. Quaternary Science Reviews, 2007, 26, 3216-3248. | 1.4 | 227 |
| 2 | TOPO-EUROPE: The geoscience of coupled deep Earth-surface processes. Global and Planetary Change, 2007, 58, 1-118. | 1.6 | 137 |
| 3 | The impact of land use and climate change on late Holocene and future suspended sediment yield of the Meuse catchment. Geomorphology, 2009, 103, 389-400. | 1.1 | 125 |
| 4 | Response of the Rhineâ€“Meuse fluvial system to Saalian iceâ€sheet dynamics. Boreas, 2008, 37, 377-398. | 1.2 | 118 |
| 5 | The Cenozoic evolution of the Roer Valley Rift System integrated at a European scale. Tectonophysics, 2003, 367, 101-126. | 0.9 | 106 |
| 6 | Sediment budget and tectonic evolution of the Meuse catchment in the Ardennes and the Roer Valley Rift System. Global and Planetary Change, 2000, 27, 113-129. | 1.6 | 105 |
| 7 | Strong increases in flood frequency and discharge of the River Meuse over the late Holocene: impacts of long-term anthropogenic land use change and climate variability. Hydrology and Earth System Sciences, 2008, 12, 159-175. | 1.9 | 86 |
| 8 | Human and climate impact on catchment development during the Holocene â€” Geul River, the Netherlands. Geomorphology, 2008, 98, 316-339. | 1.1 | 80 |
| 9 | The effect of rift shoulder erosion on stratal patterns at passive margins: Implications for sequence stratigraphy. Earth and Planetary Science Letters, 1995, 134, 527-544. | 1.8 | 69 |
| 10 | Tectonic geomorphology of the northern Upper Rhine Graben, Germany. Global and Planetary Change, 2007, 58, 310-334. | 1.6 | 68 |
| 11 | Neotectonics of the Roer Valley Rift System, the Netherlands. Global and Planetary Change, 2000, 27, 131-146. | 1.6 | 63 |
| 12 | Numerical modeling of the response of alluvial rivers to Quaternary climate change. Global and Planetary Change, 2000, 27, 147-163. | 1.6 | 63 |
| 13 | Process-based modelling of fluvial system response to rapid climate changeâ€”I: model formulation and generic applications. Quaternary Science Reviews, 2003, 22, 2077-2095. | 1.4 | 62 |
| 14 | The effect of fault relay and clay smearing on groundwater flow patterns in the Lower Rhine Embayment. Basin Research, 2004, 16, 397-411. | 1.3 | 61 |
| 15 | Contrasting Neogene denudation histories of different structural regions in the Transantarctic Mountains rift flank constrained by cosmogenic isotope measurements. Global and Planetary Change, 1999, 23, 145-172. | 1.6 | 59 |
| 16 | Pleistocene tectonics inferred from fluvial terraces of the northern Upper Rhine Graben, Germany. Tectonophysics, 2007, 430, 41-65. | 0.9 | 57 |
| 17 | Modelling the Middle Pleistocene uplift in the Ardennesâ€“Rhenish Massif: thermo-mechanical weakening under the Eifel?. Global and Planetary Change, 2000, 27, 39-52. | 1.6 | 54 |
| 18 | Neotectonics of The Netherlands: a review. Quaternary Science Reviews, 2005, 24, 439-454. | 1.4 | 54 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The impact of faults on the hydrogeological conditions in the Roer Valley Rift System: an overview. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2003, 82, 41-54. | 0.6 | 53 |
| 20 | Modeling the response of the Rhineâ€“Meuse fluvial system to Late Pleistocene climate change. Geomorphology, 2010, 114, 440-452. | 1.1 | 52 |
| 21 | Process-based modelling of fluvial system response to rapid climate change II. Application to the River Maas (The Netherlands) during the Last Glacialâ€“Interglacial Transition. Quaternary Science Reviews, 2003, 22, 2097-2110. | 1.4 | 49 |
| 22 | The influence of a stratified rheology on the flexural response of the lithosphere to (un)loading by extensional faulting. Geophysical Journal International, 1998, 134, 721-735. | 1.0 | 48 |
| 23 | On the genetically meaningful decomposition of grain-size distributions: A comparison of different end-member modelling algorithms. Sedimentary Geology, 2018, 375, 49-71. | 1.0 | 48 |
| 24 | Numerical analysis of how sedimentation and redistribution of surficial sediments affects salt diapirism. Tectonophysics, 1993, 226, 199-216. | 0.9 | 47 |
| 25 | Reconstructing the interacting effects of base level, climate, and tectonic uplift in the lower MiÃ±o River terrace record: A gradient modelling evaluation. Geomorphology, 2013, 186, 96-118. | 1.1 | 47 |
| 26 | Climate-dependent fluvial architecture and processes on a suborbital timescale in areas of rapid tectonic uplift: An example from the NE Tibetan Plateau. Global and Planetary Change, 2015, 133, 318-329. | 1.6 | 46 |
| 27 | A new multilayered model for intraplate stress-induced differential subsidence of faulted lithosphere, applied to rifted basins. Tectonics, 1998, 17, 938-954. | 1.3 | 42 |
| 28 | Slip tendency analysis as a tool to constrain fault reactivation: A numerical approach applied to three-dimensional fault models in the Roer Valley rift system (southeast Netherlands). Journal of Geophysical Research, 2004, 109, . | 3.3 | 40 |
| 29 | Late Quaternary activity of the Feldbiss Fault Zone, Roer Valley Rift System, the Netherlands, based on displaced fluvial terrace fragments. Tectonophysics, 2002, 352, 295-315. | 0.9 | 38 |
| 30 | Modelling the hydrocarbon generation and migration in the West Netherlands Basin, the Netherlands. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2000, 79, 29-44. | 0.6 | 37 |
| 31 | Late Miocene uplift of the NE Tibetan Plateau inferred from basin filling, planation and fluvial terraces in the Huang Shui catchment. Global and Planetary Change, 2012, 88-89, 10-19. | 1.6 | 37 |
| 32 | Terrace staircase development in the Southern Pyrenees Foreland: Inferences from 10Be terrace exposure ages at the Segre River. Global and Planetary Change, 2013, 101, 97-112. | 1.6 | 37 |
| 33 | Late Quaternary evolution of the Feldbiss Fault (Roer Valley Rift System, the Netherlands) based on trenching, and its potential relation to glacial unloading. Quaternary Science Reviews, 2005, 24, 489-508. | 1.4 | 36 |
| 34 | Modelling the impact of regional uplift and local tectonics on fluvial terrace preservation. Geomorphology, 2014, 210, 119-135. | 1.1 | 34 |
| 35 | Late Quaternary paleoclimatic and geomorphological evolution at the interface between the Menyuan basin and the Qilian Mountains, northeastern Tibetan Plateau. Quaternary Research, 2013, 80, 534-544. | 1.0 | 33 |
| 36 | Linking morphology across the glaciofluvial interface: A 10Be supported chronology of glacier advances and terrace formation in the Garonne River, northern Pyrenees, France. Geomorphology, 2014, 207, 71-95. | 1.1 | 33 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Geomorphology of active faulting and seismic hazard assessment: New tools and future challenges. Geomorphology, 2015, 237, 1-13. | 1.1 | 31 |
| 38 | External controls on Quaternary fluvial incision and terrace formation at the Segre River, Southern Pyrenees. Tectonophysics, 2013, 602, 316-331. | 0.9 | 30 |
| 39 | Interplay between tectonic, fluvial and erosional processes along the Western Border Fault of the northern Upper Rhine Graben, Germany. Tectonophysics, 2005, 406, 39-66. | 0.9 | 28 |
| 40 | Characterization and quantification of active faulting in the Roer valley rift system based on high precision digital elevation models. Quaternary Science Reviews, 2005, 24, 455-472. | 1.4 | 28 |
| 41 | Numerical modelling of Quaternary terrace staircase formation in the Ebro foreland basin, southernÂPyrenees, <scp>NE</scp> Iberia. Basin Research, 2016, 28, 124-146. | 1.3 | 25 |
| 42 | Aeolian dust supply from the Yellow River floodplain to the Pleistocene loess deposits of the Mangshan Plateau, central China: Evidence from zircon U-Pb age spectra. Quaternary Science Reviews, 2018, 182, 131-143. | 1.4 | 25 |
| 43 | Climatic and tectonic controls on the fluvial morphology of the Northeastern Tibetan Plateau (China). Journal of Chinese Geography, 2017, 27, 1325-1340. | 1.5 | 24 |
| 44 | Fluvial terraces of the northwest Iberian lower MiÃ±o River. Journal of Maps, 2013, 9, 513-522. | 1.0 | 22 |
| 45 | LGM Permafrost Thickness and Extent in the Northern Hemisphere derived from the Earth System Model iLOVECLIM. Permafrost and Periglacial Processes, 2016, 27, 31-42. | 1.5 | 22 |
| 46 | Pre-Neogene controls on present-day fault activity in the West Netherlands Basin and Roer Valley Rift System (southern Netherlands): role of variations in fault orientation in a uniform low-stress regime. Quaternary Science Reviews, 2005, 24, 473-488. | 1.4 | 21 |
| 47 | Thermal state of the Roer Valley Graben, part of the European Cenozoic Rift System. Basin Research, 2011, 23, 65-82. | 1.3 | 21 |
| 48 | New Estimates of Permafrost Evolution during the Last 21â€‰k Years in Eurasia using Numerical Modelling. Permafrost and Periglacial Processes, 2013, 24, 286-303. | 1.5 | 21 |
| 49 | Differential tectonic movements in the confluence area of the <scp>H</scp>uang <scp>S</scp>hui and <scp>H</scp>uang <scp>H</scp>e rivers (<scp>Y</scp>ellow <scp>R</scp>iver), <scp>NE T</scp>ibetan <scp>P</scp>lateau, as inferred from fluvial terrace positions. Boreas, 2014, 43, 469-484. | 1.2 | 21 |
| 50 | Neural network analyses of stress-induced overpressures in the Pannonian Basin. Geophysical Journal International, 1995, 121, 532-544. | 1.0 | 20 |
| 51 | An improved method for paleoflood reconstruction and flooding phase identification, applied to the Meuse River in the Netherlands. Global and Planetary Change, 2019, 177, 213-224. | 1.6 | 19 |
| 52 | Middle Proterozoicâ€“early Palaeozoic evolution of central Baltoscandian intracratonic basins: evidence for asthenospheric diapirs. Tectonophysics, 1998, 300, 131-142. | 0.9 | 18 |
| 53 | Two decades of numerical modelling to understand long term fluvial archives: Advances and future perspectives. Quaternary Science Reviews, 2017, 166, 177-187. | 1.4 | 18 |
| 54 | Fluvial terrace formation and its impacts on early human settlement in the Hanzhong basin, Qinling Mountains, central China. Global and Planetary Change, 2019, 178, 1-14. | 1.6 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Facies analysis of the Middle and Late Quaternary sediment infill of the northern Weihe Basin, Central China. Journal of Quaternary Science, 2016, 31, 152-165. | 1.1 | 17 |
| 56 | Evolution of the alluvial fans of the Luo River in the Weihe Basin, central China, controlled by faulting and climate change - A reevaluation of the paleogeographical setting of Dali Man site. Quaternary Science Reviews, 2017, 166, 339-351. | 1.4 | 16 |
| 57 | Two-dimensional modelling of stratigraphy and compaction-driven fluid flow in the Pannonian Basin. Geological Society Special Publication, 1999, 156, 391-414. | 0.8 | 15 |
| 58 | Climate and base-level controlled fluvial system change and incision during the last glacialâ€“interglacial transition, Roer river, the Netherlands â€“ western Germany. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2017, 96, 71-92. | 0.6 | 15 |
| 59 | Origin of overpressures on the Halten Terrace, offshore mid-Norway: the potential role of mechanical compaction, pressure transfer and stress. Geological Society Special Publication, 1999, 158, 137-156. | 0.8 | 14 |
| 60 | Deep subsurface temperatures in the Roer Valley Graben and the Peelblock, the Netherlands - new results. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2002, 81, 19-26. | 0.6 | 14 |
| 61 | Storms in a lagoon: Flooding history during the last 1200 years derived from geological and historical archives of Schokland (Noordoostpolder, the Netherlands). Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2014, 93, 175-196. | 0.6 | 14 |
| 62 | The influence of faults and intraplate stresses on the overpressure evolution of the Halten Terrace, mid-Norwegian margin. Tectonophysics, 2000, 320, 331-345. | 0.9 | 13 |
| 63 | Hydrogeological aspects of fault zones on various scales in theRoer Valley Rift System. Journal of Geochemical Exploration, 2003, 78-79, 317-320. | 1.5 | 13 |
| 64 | Fluvial or aeolian? Unravelling the origin of the silty clayey sediment cover of terraces in the Hanzhong Basin (Qinling Mountains, central China). Geomorphology, 2020, 367, 107294. | 1.1 | 13 |
| 65 | Tectonic control of the sedimentary record and stress-induced fluid flow: constraints from basin modelling. Geological Society Special Publication, 1994, 78, 9-26. | 0.8 | 11 |
| 66 | IMPLICATIONS OF OROGENIC WEDGE GROWTH, INTRAPLATE STRESS VARIATIONS, AND EUSTATIC SEA-LEVEL CHANGE FOR FORELAND BASIN STRATIGRAPHYâ€"INFERENCES FROM NUMERICAL MODELING. , 1995, , 25-35. | | 10 |
| 67 | The effect of inplane force variations on a faulted elastic thin-plate, Implications for rifted sedimentary basins. Geophysical Research Letters, 1998, 25, 3903-3906. | 1.5 | 9 |
| 68 | Paleoflooding reconstruction from Holocene levee deposits in the Lower Meuse valley, the Netherlands. Geomorphology, 2020, 352, 107002. | 1.1 | 9 |
| 69 | Anthropogenic impacts on Holocene fluvial dynamics in the Chinese Loess Plateau, an evaluation based on landscape evolution modeling. Geomorphology, 2021, 392, 107935. | 1.1 | 9 |
| 70 | Neotectonic evolution and sediment budget of the Meuse catchment in the Ardennes and the Roer Valley Rift System. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2002, 81, 211-215. | 0.6 | 8 |
| 71 | Weichselian and Holocene climate history reflected in temperatures in the upper crust of the Netherlands. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2014, 93, 107-117. | 0.6 | 8 |
| 72 | Geochemical characterization of the middle and late Pleistocene alluvial fan-dominated infill of the northern part of the Weihe Basin, Central China. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 482, 57-69. | 1.0 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Environmental changes in the late AllerÃ¸d and early Younger Dryas in the Netherlands: a multiproxy high-resolution record from a site with two Pinus sylvestris populations. Quaternary Science Reviews, 2021, 272, 107199. | 1.4 | 8 |
| 74 | History of petroleum systems in the southern part of the Broad Fourteens Basin. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2003, 82, 71-90. | 0.6 | 7 |
| 75 | Advancement toward coupling of the VAMPER permafrost model within the Earth system model <l>i</l>LOVECLIM (version 1.0): description and validation. Geoscientific Model Development, 2015, 8, 1445-1460. | 1.3 | 7 |
| 76 | Tectonic and climatic controls on Quaternary fluvial processes and river terrace formation in a Mediterranean setting, the GÃ¶ksu River, southern Turkey. Quaternary Research, 2019, 91, 533-547. | 1.0 | 7 |
| 77 | Human presence in the central Netherlands during early MIS 6 (~170-190 Ka): evidence from early Middle Palaeolithic artefacts in ice-pushed Rhine-Meuse sediments. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2010, 89, 77-83. | 0.6 | 6 |
| 78 | Re-interpreting the biochronology of the La Celia and Los Gargantones mammal sites (Late Miocene,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 0.7 | 6 |
| 79 | Process-based modelling of the climatic forcing of fluvial sediment flux: some examples and a discussion of optimal model complexity. Geological Society Special Publication, 2002, 191, 187-198. | 0.8 | 5 |
| 80 | Comment on â€˜Causes, consequences and chronology of largeâ€magnitude palaeoflows in Middle and Late Pleistocene river systems of northwest Europeâ€™ by Westaway and Bridgland (2010). Earth Surface Processes and Landforms, 2011, 36, 1836-1840. | 1.2 | 5 |
| 81 | Landscape potential for the adoption of crop cultivation: Role of local soil properties and groundwater table rise during 6000â€“5400ÂBP in Flevoland (central Netherlands). Quaternary International, 2015, 367, 77-95. | 0.7 | 5 |
| 82 | Active faulting and folding along the Jumilla Fault Zone, northeastern Betics, Spain. Geomorphology, 2015, 237, 88-97. | 1.1 | 3 |
| 83 | Coupling of VAMPERS within iLOVECLIM: experiments during the LGM and Last Deglaciation. Journal of Quaternary Science, 2019, 34, 215-227. | 1.1 | 3 |
| 84 | Rapid flood intensification and environmental response of the Lower Meuse during the AllerÃ¸d-Younger Dryas climate transition. Geomorphology, 2021, 372, 107469. | 1.1 | 3 |
| 85 | An overview of fault zone permeabilities and groundwater level steps in the Roer Valley Rift System. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2019, 98, . | 0.6 | 3 |
| 86 | Gravel size matters: Early Middle Palaeolithic artefacts made from local Rhine and Meuse deposits in the central Netherlands. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2017, 96, 261-271. | 0.6 | 2 |
| 87 | Late Weichselian and Holocene climatic and local controls on aeolian deposition inferred from decomposing grain size-shape distributions. Quaternary Science Reviews, 2022, 287, 107554. | 1.4 | 2 |
| 88 | Marine and anthropogenic controls on the estuary of the Suriname River over the past 50 years. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2016, 95, 419-428. | 0.6 | 1 |
| 89 | A celebration of the twentieth anniversary of the Fluvial Archives Group (FLAG). Quaternary Research, 2019, 91, 453-456. | 1.0 | 1 |
| 90 | Glacial geology of Saalian relief around Midwolda, eastern Groningen, the Netherlands. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2018, 97, 261-282. | 0.6 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | The Interplay between Tectonic Activity, Climate and Sea-Level Change in the Suriname River Valley, Tropical South America. Quaternary, 2021, 4, 11. | 1.0 | 0 |
| 92 | Temporal and spatial variability of cross-fault groundwater-level differences: the impact of fault-induced permeability reduction, precipitation and evapotranspiration. Hydrogeology Journal, 0, , 1. | 0.9 | 0 |