# Joeri Rogelj

List of Publications by Year
in descending order



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|---|---|---|---|
| 116 papers | 22,990 citations | 23879 60 h-index | 18944 123 g-index |
| 155 all docs | 155 docs citations | 155 times ranked | 22045 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Indicate separate contributions of long-lived and short-lived greenhouse gases in emission targets. Npj Climate and Atmospheric Science, 2022, 5, 5. | 2.6 | 36 |
| 2 | Near-term transition and longer-term physical climate risks of greenhouse gas emissions pathways. Nature Climate Change, 2022, 12, 88-96. | 8.1 | 26 |
| 3 | An emission pathway classification reflecting the Paris Agreement climate objectives. Communications Earth & Environment, 2022, 3, . | 2.6 | 32 |
| 4 | Net-zero emissions targets are vague: three ways to fix. Nature, 2021, 591, 365-368. | 13.7 | 240 |
| 5 | Critical adjustment of land mitigation pathways for assessing countriesâ€™ climate progress. Nature Climate Change, 2021, 11, 425-434. | 8.1 | 61 |
| 6 | The Climate Response to Emissions Reductions Due to COVIDâ€19: Initial Results From CovidMIP. Geophysical Research Letters, 2021, 48, e2020GL091883. | 1.5 | 43 |
| 7 | Modifying emissions scenario projections to account for the effects of COVID-19: protocol for CovidMIP. Geoscientific Model Development, 2021, 14, 3683-3695. | 1.3 | 28 |
| 8 | Reply to Comment on â€˜Unintentional unfairness when applying new greenhouse gas emissions metrics at country levelâ€™. Environmental Research Letters, 2021, 16, 068002. | 2.2 | 3 |
| 9 | Reduced Complexity Model Intercomparison Project Phase 2: Synthesizing Earth System Knowledge for Probabilistic Climate Projections. Earth's Future, 2021, 9, e2020EF001900. | 2.4 | 28 |
| 10 | Emissions estimations should embed a precautionary principle. Nature Climate Change, 2021, 11, 638-640. | 8.1 | 14 |
| 11 | Economic damages from on-going climate change imply deeper near-term emission cuts. Environmental Research Letters, 2021, 16, 104053. | 2.2 | 13 |
| 12 | Wave of net zero emission targets opens window to meeting the Paris Agreement. Nature Climate Change, 2021, 11, 820-822. | 8.1 | 129 |
| 13 | Where is the EU headed given its current climate policy? A stakeholder-driven model inter-comparison. Science of the Total Environment, 2021, 793, 148549. | 3.9 | 26 |
| 14 | Radiative effects of reduced aerosol emissions during the COVID-19 pandemic and the future recovery. Atmospheric Research, 2021, 264, 105866. | 1.8 | 7 |
| 15 | An integrated approach to quantifying uncertainties in the remaining carbon budget. Communications Earth & Environment, 2021, 2, . | 2.6 | 52 |
| 16 | Ten new insights in climate science 2021: a horizon scan. Global Sustainability, 2021, 4, . | 1.6 | 26 |
| 17 | Climate mitigation scenarios with persistent COVID-19-related energy demand changes. Nature Energy, 2021, 6, 1114-1123. | 19.8 | 47 |
| 18 | Can updated climate pledges limit warming well below 2Â°C?. Science, 2021, 374, 693-695. | 6.0 | 80 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Cost and attainability of meeting stringent climate targets without overshoot. Nature Climate Change, 2021, 11, 1063-1069. | 8.1 | 102 |
| 20 | A multi-model analysis of long-term emissions and warming implications of current mitigation efforts. Nature Climate Change, 2021, 11, 1055-1062. | 8.1 | 69 |
| 21 | The cost of mitigation revisited. Nature Climate Change, 2021, 11, 1035-1045. | 8.1 | 34 |
| 22 | COVID-19 recovery funds dwarf clean energy investment needs. Science, 2020, 370, 298-300. | 6.0 | 101 |
| 23 | Opportunities and challenges in using remaining carbon budgets to guide climate policy. Nature Geoscience, 2020, 13, 769-779. | 5.4 | 68 |
| 24 | Current and future global climate impacts resulting from COVID-19. Nature Climate Change, 2020, 10, 913-919. | 8.1 | 400 |
| 25 | Impact of methane and black carbon mitigation on forcing and temperature: a multi-model scenario analysis. Climatic Change, 2020, 163, 1427-1442. | 1.7 | 15 |
| 26 | The role of energy in mitigating grain storage losses in India and the impact for nutrition. Resources, Conservation and Recycling, 2020, 163, 105100. | 5.3 | 5 |
| 27 | Changes to Carbon Isotopes in Atmospheric CO<sub>2</sub> Over the Industrial Era and Into the Future. Global Biogeochemical Cycles, 2020, 34, e2019GB006170. | 1.9 | 63 |
| 28 | Early retirement of power plants in climate mitigation scenarios. Environmental Research Letters, 2020, 15, 094064. | 2.2 | 38 |
| 29 | Is there warming in the pipeline? A multi-model analysis of the Zero Emissions Commitment from CO<sub>2</sub>. Biogeosciences, 2020, 17, 2987-3016. | 1.3 | 87 |
| 30 | Energy modellers should explore extremes more systematically in scenarios. Nature Energy, 2020, 5, 104-107. | 19.8 | 71 |
| 31 | Emissions: world has four times the work or one-third of the time. Nature, 2020, 579, 25-28. | 13.7 | 136 |
| 32 | Uncertainty in carbon budget estimates due to internal climate variability. Environmental Research Letters, 2020, 15, 104064. | 2.2 | 7 |
| 33 | Reduced Complexity Model Intercomparison Project Phase 1: introduction and evaluation of global-mean temperature response. Geoscientific Model Development, 2020, 13, 5175-5190. | 1.3 | 70 |
| 34 | Silicone v1.0.0: an open-source Python package for inferring missing emissions data for climate change research. Geoscientific Model Development, 2020, 13, 5259-5275. | 1.3 | 24 |
| 35 | Estimating and tracking the remaining carbon budget for stringent climate targets. Nature, 2019, 571, 335-342. | 13.7 | 229 |
| 36 | Unintentional unfairness when applying new greenhouse gas emissions metrics at country level. Environmental Research Letters, 2019, 14, 114039. | 2.2 | 57 |

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|---|---|---|---|
| 37 | Key technological enablers for ambitious climate goals: insights from the IPCC special report on global warming of 1.5 Â°C. Environmental Research Letters, 2019, 14, 111001. | 2.2 | 28 |
| 38 | Path Independence of Carbon Budgets When Meeting a Stringent Global Mean Temperature Target After an Overshoot. Earth's Future, 2019, 7, 1283-1295. | 2.4 | 28 |
| 39 | Negative emissions and international climate goalsâ€"learning from and about mitigation scenarios. Climatic Change, 2019, 157, 189-219. | 1.7 | 74 |
| 40 | A new generation of emissions scenarios should cover blind spots in the carbon budget space. Nature Climate Change, 2019, 9, 798-800. | 8.1 | 14 |
| 41 | Modelling the multi-scaled nature of pest outbreaks. Ecological Modelling, 2019, 409, 108745. | 1.2 | 16 |
| 42 | A new scenario logic for the Paris Agreement long-term temperature goal. Nature, 2019, 573, 357-363. | 13.7 | 307 |
| 43 | The Antarctic Peninsula Under a 1.5Â°C Global Warming Scenario. Frontiers in Environmental Science, 2019, 7, . | 1.5 | 117 |
| 44 | Inconsistencies when applying novel metrics for emissions accounting to the Paris agreement. Environmental Research Letters, 2019, 14, 124055. | 2.2 | 29 |
| 45 | The Zero Emissions Commitment Model Intercomparison Project (ZECMIP) contribution to C4MIP: quantifying committed climate changes following zero carbon emissions. Geoscientific Model Development, 2019, 12, 4375-4385. | 1.3 | 56 |
| 46 | Recommended temperature metrics for carbon budget estimates, model evaluation and climate policy. Nature Geoscience, 2019, 12, 964-971. | 5.4 | 23 |
| 47 | Energy system changes in 1.5â€̄Â°C, well below 2â€̄Â°C and 2â€̄Â°C scenarios. Energy Strategy Reviews, 2019, 23, 69-80. | 3.3 | 57 |
| 48 | CurrentÂfossil fuel infrastructure does not yet commit us to 1.5â€‰Â°C warming. Nature Communications, 2019, 10, 101. | 5.8 | 125 |
| 49 | Committed sea-level rise under the Paris Agreement and the legacy of delayed mitigation action. Nature Communications, 2018, 9, 601. | 5.8 | 106 |
| 50 | Scenarios towards limiting global mean temperature increase below 1.5 Â°C. Nature Climate Change, 2018, 8, 325-332. | 8.1 | 795 |
| 51 | Connecting the sustainable development goals by their energy inter-linkages. Environmental Research Letters, 2018, 13, 033006. | 2.2 | 263 |
| 52 | Implications of possible interpretations of â€˜greenhouse gas balanceâ€™ in the Paris Agreement. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160445. | 1.6 | 72 |
| 53 | Pathways limiting warming to 1.5Â°C: a tale of turning around in no time?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160457. | 1.6 | 84 |
| 54 | Reply to â€˜Interpretations of the Paris climate targetâ€™. Nature Geoscience, 2018, 11, 222-222. | 5.4 | 8 |

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|---|---|---|---|
| 55 | Mitigation scenarios must cater to new users. Nature Climate Change, 2018, 8, 845-848. | 8.1 | 27 |
| 56 | Global mean temperature indicators linked to warming levels avoiding climate risks. Environmental Research Letters, 2018, 13, 064015. | 2.2 | 15 |
| 57 | A new scenario resource for integrated 1.5 Â°C research. Nature Climate Change, 2018, 8, 1027-1030. | 8.1 | 120 |
| 58 | Negative emissionsâ€"Part 1: Research landscape and synthesis. Environmental Research Letters, 2018, 13, 063001. | 2.2 | 498 |
| 59 | Carbon prices across countries. Nature Climate Change, 2018, 8, 648-650. | 8.1 | 86 |
| 60 | Negative emissionsâ€"Part 2: Costs, potentials and side effects. Environmental Research Letters, 2018, 13, 063002. | 2.2 | 823 |
| 61 | Climate extremes, landâ€"climate feedbacks and land-use forcing at 1.5Â°C. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160450. | 1.6 | 46 |
| 62 | Residual fossil CO2 emissions in 1.5â€"2â€‰Â°C pathways. Nature Climate Change, 2018, 8, 626-633. | 8.1 | 380 |
| 63 | Inclusive climate change mitigation and food security policy under 1.5â€‰Â°C climate goal. Environmental Research Letters, 2018, 13, 074033. | 2.2 | 37 |
| 64 | Sea-level commitment as a gauge for climate policy. Nature Climate Change, 2018, 8, 653-655. | 8.1 | 21 |
| 65 | A low energy demand scenario for meeting the 1.5â€‰Â°C target and sustainable development goals without negative emission technologies. Nature Energy, 2018, 3, 515-527. | 19.8 | 733 |
| 66 | The many possible climates from the Paris Agreementâ€™s aim of 1.5 Â°C warming. Nature, 2018, 558, 41-49. | 13.7 | 116 |
| 67 | Crop productivity changes in 1.5â€‰Â°C and 2â€‰Â°C worlds under climate sensitivity uncertainty. Environmental Research Letters, 2018, 13, 064007. | 2.2 | 79 |
| 68 | Global exposure and vulnerability to multi-sector development and climate change hotspots. Environmental Research Letters, 2018, 13, 055012. | 2.2 | 162 |
| 69 | Characterizing halfâ€aâ€degree difference: a review of methods for identifying regional climate responses to global warming targets. Wiley Interdisciplinary Reviews: Climate Change, 2017, 8, e457. | 3.6 | 177 |
| 70 | Understanding the origin of Paris Agreement emission uncertainties. Nature Communications, 2017, 8, 15748. | 5.8 | 82 |
| 71 | A roadmap for rapid decarbonization. Science, 2017, 355, 1269-1271. | 6.0 | 815 |
| 72 | Equitable mitigation to achieve the Paris Agreement goals. Nature Climate Change, 2017, 7, 38-43. | 8.1 | 270 |

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|---|---|---|---|
| 73 | Linking sea level rise and socioeconomic indicators under the Shared Socioeconomic Pathways. Environmental Research Letters, 2017, 12, 114002. | 2.2 | 39 |
| 74 | Getting It Right Matters: Temperature Goal Interpretations in Geoscience Research. Geophysical Research Letters, 2017, 44, 10,662. | 1.5 | 51 |
| 75 | Emission budgets and pathways consistent with limiting warming to 1.5â€‰Â°C. Nature Geoscience, 2017, 10, 741-747. | 5.4 | 422 |
| 76 | The marker quantification of the Shared Socioeconomic Pathway 2: A middle-of-the-road scenario for the 21st century. Global Environmental Change, 2017, 42, 251-267. | 3.6 | 590 |
| 77 | The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. Global Environmental Change, 2017, 42, 153-168. | 3.6 | 2,966 |
| 78 | Differential climate impacts for policy-relevant limits to global warming: the case of 1.5â€¯Â°C and 2â€¯Â°C. Earth System Dynamics, 2016, 7, 327-351. | 2.7 | 508 |
| 79 | Simulating the Earth system response to negative emissions. Environmental Research Letters, 2016, 11, 095012. | 2.2 | 98 |
| 80 | Carbon budgets and energy transition pathways. Environmental Research Letters, 2016, 11, 075002. | 2.2 | 53 |
| 81 | The cumulative carbon budget and its implications. Oxford Review of Economic Policy, 2016, 32, 323-342. | 1.0 | 47 |
| 82 | The world's biggest gamble. Earth's Future, 2016, 4, 465-470. | 2.4 | 70 |
| 83 | Science and policy characteristics of the Paris Agreement temperature goal. Nature Climate Change, 2016, 6, 827-835. | 8.1 | 536 |
| 84 | Policy trade-offs between climate mitigation and clean cook-stove access in South Asia. Nature Energy, 2016, 1, . | 19.8 | 81 |
| 85 | Mapping the climate change challenge. Nature Climate Change, 2016, 6, 663-668. | 8.1 | 75 |
| 86 | Paris Agreement climate proposals need a boost to keep warming well below 2â€‰Â°C. Nature, 2016, 534, 631-639. | 13.7 | 2,397 |
| 87 | A scientific critique of the two-degree climate change target. Nature Geoscience, 2016, 9, 13-18. | 5.4 | 282 |
| 88 | Biophysical and economic limits to negative CO2 emissions. Nature Climate Change, 2016, 6, 42-50. | 8.1 | 973 |
| 89 | Differences between carbon budget estimates unravelled. Nature Climate Change, 2016, 6, 245-252. | 8.1 | 228 |
| 90 | Geosciences after Paris. Nature Geoscience, 2016, 9, 187-189. | 5.4 | 51 |

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|---|---|---|---|
| 91 | Impact of short-lived non-CO <sub>2</sub> mitigation on carbon budgets for stabilizing global warming. Environmental Research Letters, 2015, 10, 075001. | 2.2 | 63 |
| 92 | Mitigation choices impact carbon budget size compatible with low temperature goals. Environmental Research Letters, 2015, 10, 075003. | 2.2 | 29 |
| 93 | Energy system transformations for limiting end-of-century warming to below 1.5 Â°C. Nature Climate Change, 2015, 5, 519-527. | 8.1 | 708 |
| 94 | Zero emission targets as long-term global goals for climate protection. Environmental Research Letters, 2015, 10, 105007. | 2.2 | 220 |
| 95 | The legacy of our CO2 emissions: a clash of scientific facts, politics and ethics. Climatic Change, 2015, 133, 361-373. | 1.7 | 90 |
| 96 | National post-2020 greenhouse gas targets and diversity-aware leadership. Nature Climate Change, 2015, 5, 1098-1106. | 8.1 | 91 |
| 97 | Can Paris pledges avert severe climate change?. Science, 2015, 350, 1168-1169. | 6.0 | 260 |
| 98 | Stranded on a low-carbon planet: Implications of climate policy for the phase-out of coal-based power plants. Technological Forecasting and Social Change, 2015, 90, 89-102. | 6.2 | 132 |
| 99 | Implications of potentially lower climate sensitivity on climate projections and policy. Environmental Research Letters, 2014, 9, 031003. | 2.2 | 48 |
| 100 | Disentangling the effects of CO <sub>2</sub> and short-lived climate forcer mitigation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16325-16330. | 3.3 | 114 |
| 101 | Questions of bias in climate models. Nature Climate Change, 2014, 4, 741-742. | 8.1 | 4 |
| 102 | Persistent growth of CO2 emissions and implications for reaching climate targets. Nature Geoscience, 2014, 7, 709-715. | 5.4 | 615 |
| 103 | Air-pollution emission ranges consistent with the representative concentration pathways. Nature Climate Change, 2014, 4, 446-450. | 8.1 | 52 |
| 104 | A holistic approach to climate targets. Nature, 2013, 499, 160-161. | 13.7 | 6 |
| 105 | Probabilistic cost estimates for climate change mitigation. Nature, 2013, 493, 79-83. | 13.7 | 255 |
| 106 | 2020 emissions levels required to limit warming to below 2â€‰Â°C. Nature Climate Change, 2013, 3, 405-412. | 8.1 | 159 |
| 107 | The UN's 'Sustainable Energy for All' initiative is compatible with a warming limit of 2 Â°C. Nature Climate Change, 2013, 3, 545-551. | 8.1 | 57 |
| 108 | National GHG emissions reduction pledges and 2Â°C: comparison of studies. Climate Policy, 2012, 12, 356-377. | 2.6 | 25 |

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|---|---|---|---|
| 109 | Global warming under old and new scenarios using IPCC climate sensitivity range estimates. Nature Climate Change, 2012, 2, 248-253. | 8.1 | 632 |
| 110 | Emission pathways consistent with a 2â€‰Â°C global temperature limit. Nature Climate Change, 2011, 1, 413-418. | 8.1 | 262 |
| 111 | Decision support for international climate policy â€“ The PRIMAP emission module. Environmental Modelling and Software, 2011, 26, 1419-1433. | 1.9 | 20 |
| 112 | Discrepancies in historical emissions point to a wider 2020 gap between 2â€‰Â°C benchmarks and aggregated national mitigation pledges. Environmental Research Letters, 2011, 6, 024002. | 2.2 | 19 |
| 113 | Copenhagen Accord pledges are paltry. Nature, 2010, 464, 1126-1128. | 13.7 | 207 |
| 114 | Analysis of the Copenhagen Accord pledges and its global climatic impactsâ€"a snapshot of dissonant ambitions. Environmental Research Letters, 2010, 5, 034013. | 2.2 | 44 |
| 115 | Halfway to Copenhagen, no way to 2 Â°C. Nature Climate Change, 2009, 1, 81-83. | 8.1 | 32 |
| 116 | Estimated climate impact of replacing agriculture as the primary food production system. Environmental Research Letters, 0, , . | 2.2 | 1 |