

Resource Summary Report

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Computational Infrastructure for Geodynamics

RRID:SCR_003371

Type: Tool

Proper Citation

Computational Infrastructure for Geodynamics (RRID:SCR_003371)

Resource Information

URL: <http://geodynamics.org/>

Proper Citation: Computational Infrastructure for Geodynamics (RRID:SCR_003371)

Description: Community-driven organization that develops and disseminates software for geophysics and related fields. They host codes in a wide range of disciplines in geodynamics and computational science including geodynamo, long-term tectonics, magma migration, mantle dynamics, seismology, and short-term crustal dynamics.

Abbreviations: CIG

Synonyms: Computational Infrastructure for Geodynamics (CIG)

Resource Type: data or information resource, group, portal

Keywords: geophysics, modeling, computation, computational science, geodynamo, long-term tectonics, magma migration, mantle dynamics, seismology, short term crustal dynamics

Funding: NSF 094946

Availability: Free, Freely available

Resource Name: Computational Infrastructure for Geodynamics

Resource ID: SCR_003371

Alternate IDs: SciRes_000182

License: GNU General Public License, BSD, CeCILL version 2, MIT

Record Creation Time: 20220129T080218+0000

Record Last Update: 20260919T195552+0000

Ratings and Alerts

No rating or validation information has been found for Computational Infrastructure for Geodynamics.

No alerts have been found for Computational Infrastructure for Geodynamics.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

Listed below are recent publications. The full list is available at [nidm-terms](#) .

Xie Z, et al. (2026) Seismological analysis of the tectonic evolution of the Laji Shan fault from the 2023 Jishishan MS 6.2 earthquake. Scientific reports, 16(1).

Li Y, et al. (2025) Quantitative analysis of ultra-close fault dynamic rupture and seismic risks in deep roadway excavation. Scientific reports, 15(1), 8891.

Zwaan F, et al. (2025) Rift-inversion orogens are potential hot spots for natural H₂ generation. Science advances, 11(8), eadr3418.

Wu R, et al. (2024) Influence of different factors on coseismic deformation of the 2015 Mw7.8 earthquake in Nepal. Scientific reports, 14(1), 9613.

Xie S, et al. (2024) The role of plume-lithosphere interaction in Hawaii-Emperor chain formation. Nature communications, 15(1), 6571.

Cao Z, et al. (2024) Western US intraplate deformation controlled by the complex lithospheric structure. Nature communications, 15(1), 3917.

Gernon TM, et al. (2024) Coevolution of craton margins and interiors during continental break-up. Nature, 632(8024), 327.

Richards FD, et al. (2023) Geodynamically corrected Pliocene shoreline elevations in Australia consistent with midrange projections of Antarctic ice loss. Science advances, 9(46), eadg3035.

Wu X, et al. (2023) Paleogene India-Eurasia collision constrained by observed plate rotation. Nature communications, 14(1), 7272.

Bahadori A, et al. (2022) Coupled influence of tectonics, climate, and surface processes on landscape evolution in southwestern North America. Nature communications, 13(1), 4437.

Bahadori A, et al. (2022) The role of gravitational body forces in the development of metamorphic core complexes. Nature communications, 13(1), 5646.

Jones MJ, et al. (2022) A South Pole-Aitken impact origin of the lunar compositional asymmetry. *Science advances*, 8(14), eabm8475.

Hu J, et al. (2021) Southward expanding plate coupling due to variation in sediment subduction as a cause of Andean growth. *Nature communications*, 12(1), 7271.

Borgeaud AFE, et al. (2017) Imaging paleoslabs in the D₂ layer beneath Central America and the Caribbean using seismic waveform inversion. *Science advances*, 3(11), e1602700.

Austermann J, et al. (2017) Detection of a dynamic topography signal in last interglacial sea-level records. *Science advances*, 3(7), e1700457.

Harms J, et al. (2015) Terrestrial Gravity Fluctuations. *Living reviews in relativity*, 18(1), 3.