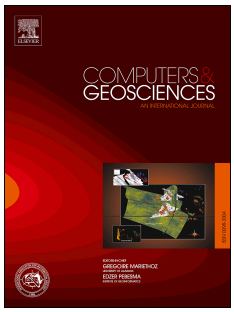
Accepted Manuscript



Global tectonic reconstructions with continuously deforming and evolving rigid plates

Michael Gurnis, Ting Yang, John Cannon, Mark Turner, Simon Williams, Nicolas Flament, R. Dietmar Müller

PII: S0098-3004(17)31031-2

DOI: 10.1016/j.cageo.2018.04.007

Reference: CAGEO 4119

To appear in: *Computers and Geosciences*

Received Date: 2 October 2017

Revised Date: 5 April 2018

Accepted Date: 17 April 2018

Please cite this article as: Gurnis, M., Yang, T., Cannon, J., Turner, M., Williams, S., Flament, N., Müller, R.D., Global tectonic reconstructions with continuously deforming and evolving rigid plates, *Computers and Geosciences* (2018), doi: 10.1016/j.cageo.2018.04.007.

Global Tectonic Reconstructions with Continuously Deforming and Evolving Rigid Plates

Michael Gurnis[a,1], Ting Yang[a,2], John Cannon[b], Mark Turner[a], Simon Williams[b], Nicolas Flament[b,3], and R. Dietmar Müller[b]

a. Seismological Laboratory, California Institute of Technology, Pasadena, CA 91125, USA

b. EarthByte Group, School of Geosciences, The University of Sydney, Sydney, NSW 2006, Australia

1. *Corresponding author: gurnis@gps.caltech.edu*
2. *Now at: School of Earth Sciences, University of Melbourne, Melbourne, Vic 3010, Australia*
3. *Now at: School of Earth and Environmental Sciences, University of Wollongong, Northfields Avenue, Wollongong NSW 2522, Australia.*

Author contributions

M.G. conceived the overall deforming algorithm. J.C. and M.T. implemented the algorithm in GPlates. T.Y. refined the mathematics of the algorithm. M.G., T.Y., S.W. and N.F. developed and applied example reconstructions. All authors refined the algorithm in the context of GPlates and contributed to the writing of the manuscript, led by M.G.