

Files description:

Rec.mat: Matlab file containing all the reconstructed plate geometries during 0-140 Ma.

FiniteRot_APWPGP.rot: Finite rotation file used in GPLates.

Plus shape files for the East Gondwana continents.

Instructions:

We use the Matlab structure variable 'Rec' to store the reconstructions ([lon,lat]) of East Gondwana continents. Field designations are : f1 - India; f2 - Australia; f3 - East Antarctica during 0 - 140 Ma.

For instance, the reconstruction of India at 50 Ma can be accessed using the Matlab command: Rec(6).f1; reconstruction for E.Antarctic at 140 Ma is accessed using: Rec(15).f3. For this you need to browse for the folder with all the files, then you need load the file Rec.mat by double clicking on it. After you need to type **Rec(6).f1** in the command window.

In case that you want to calculate the kinematics for the specific reference sites, we also prepare a finite rotation file 'FiniteRot_APWPGP.rot' as well as the geometry .shp files which can be directly used in GPLates.

Please cite the data usage by:

Wu, L., Kravchinsky, V.A., 2014. Derivation of paleo-longitude from the geometric parametrization of apparent polar wander path: implication for absolute plate motion reconstruction. *Geophysical Research Letters*, 41(13): 4503-4511, doi:10.1002/2014GL060080.