



Global Paleomagnetic Database, global 2000-0 Ma paleogeographic animation and Large Igneous Provinces

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The Global Paleomagnetic Database has been recently updated and it now contains ~9900 paleomagnetic poles from ~4100 publications. In addition some age corrections have been done for poles published before 2005. The database also incorporates some recommended changes by a working group at the 8th Nordic Palaeomagnetism Workshop, Iceland (October 2017). The status of reliability criteria for each pole has also been added to the database. We aim to make an online, interactive version of the updated database soon, available through the website of the Earth Dynamic Group at Curtin University. This version will include some elements of GIS and allows users to make “spatial” queries by choosing geographical polygons, to do some calculations of mean directions and mean poles, and to see the results on stereoplots. There will also be other facilities, including various export/import functions. In particular, the chosen paleomagnetic poles can be used directly for making paleogeographic reconstructions and animations with the GPLATES free software, developed by the EarthByte research group in the University of Sydney (<https://www.gplates.org>). The wealth of new paleomagnetic data and age-corrected older results will facilitate a new generation of plate reconstructions. Here we shall demonstrate a new, continuous global paleogeographic animation for the last 2 billion years. In its Late Paleozoic to Cenozoic part, our model incorporates many elements of recently published animations, but include significant changes, especially in the kinematics of East Asian cratons and terranes. We also applied inclination-shallowing correction to all paleomagnetic results from clastic rocks and utilised available geotectonic databases in the construction of our plate model. We shall also demonstrate the distribution of Large Igneous Provinces on the paleogeographic reconstructions.