

Paleoshape of Antarctica and Australia

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Using 20 years GPS data, we reconstructed the paleo shapes of Antarctica and Australia continents by extrapolating smooth-surfaced vector field of the GPS data to check how far we can extrapolate the GPS data toward the past.

Figure below shows that about 90Ma shapes of the two continents (left) fit better each other than current shapes of the continents (right). black lines are coast lines, green and red lines are 3000m depth contours of Antarctica and Australia respectively. This result implies that 20 years of GPS data include deformation of continents for the time scale of tens of million years.

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