

## **Mantle plumes and superswells.**

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If the Pacific "Ring of Fire" has been operating essentially in place since the breakup of Pangea (migrating only slowly as the Pacific closes in response to the growth of the Atlantic and Indian oceans), the downward motion of the near-continuous Pacific "belt" of subduction can drive/push the upwelling flow (plumes) toward the "poles" of this belt (Africa and the central Pacific). This pattern of mantle flow could enhance upward flow in these superswell regions – over time this could change the geotherm from what it is in "normal" regions. Our poster explores consequences of such a mode of mantle convection.