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Postrift exhumation caused by movement along faults, shear, and fracture zones on both sides of the South Atlantic continental margins, an overview

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Passive continental margins are important geoarchives for processes like mantle and lithosheric dynamics, breakup of continents, and feedback mechanism between rock uplift and erosion, and therefore, climate change. The onshore-offshore transition between São Paulo and Porto Alegre is a key area for the western margin of the South Atlantic and the Namibia to Angola section for the eastern margin. Quantifying rates and timing of the long-term topography evolution provide insight into the causes. Analytical techniques applied are a combination of thermochronological dating techniques and numerical modeling of the time-temperature evolution. Special emphasis is given to the reactivation and activation of faults and fracture systems. The presentation will focus on the influence of faults, shear, and fracture zones on the evolution of the margins.