



Opening of the South Atlantic: Rate estimation for different models

M.C. Bianchi (1), S. Clark (2), M. Smethurst (3,2), and H.-P. Bunge (4)

(1) LMU, Munich, Germany, (2) Simula Research, Oslo, Norway, (3) Exeter University, Falmouth, England, (4) LMU, Munich, Germany

Understanding the early tectonic formation of oceans is important since, for example, the position of petroleum-rich basins is strongly dependent on the stretching history of the plates. The first stages of the South Atlantic opening are not precisely defined; at least six competing models describe this process. Comparing these models is complicated by two factors: firstly, different time-scales are used; secondly, two different opening ages for the South Atlantic are suggested, 150 Ma and 130 Ma.

This study is focused on the implications these different models have for the rates of opening. To perform the comparison, the reconstructions have been carefully converted to the same time-scale.

From this basis, we analyse the implications of the different models for the relative velocities between South America and Africa at different points along the margin.