1. Data used in our lithospheric structure modeling

2. Lithospheric structure

3. Geodynamic interpretation

4. Geodynamic numerical modeling

5. Model A - Isoviscous lithospheric mantle

6. Model B - Two lithospheric mantles

7. Topography - surface stress

Conclusions
- Strong crust-mantle decoupling allows for mantle extension and crustal compression in the Atlas region.
- Viscosity in the continental domain must be < 2.5E+22 Pa.s in order to reproduce mantle thinning beneath the Atlas in the required time interval (40-50 My).
- Model A produces larger mantle thinning and coupled dragging beneath the Atlas than model B (heterogeneous viscosity), but unrealistic lithospheric thickening and subsidence in the oceanic domain.
- Model B reproduces the observed lithosphere geometry after 50 My evolution but drip-drag mechanism is especially effective for longer times.
- Both models predict a linear subsidence through time beneath the margin of ~1 km and uplift of ~0.8 km in the Atlas.