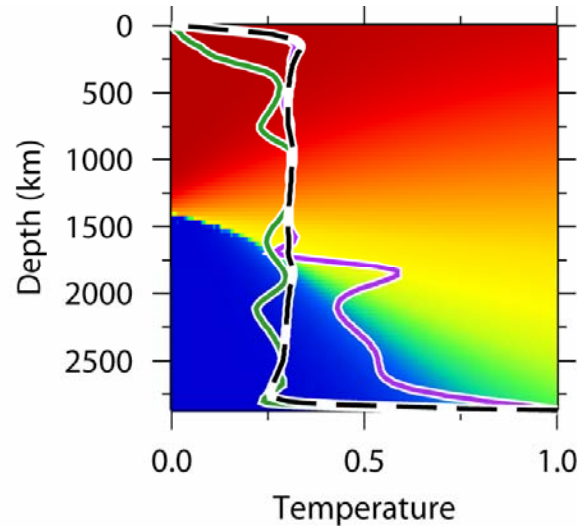
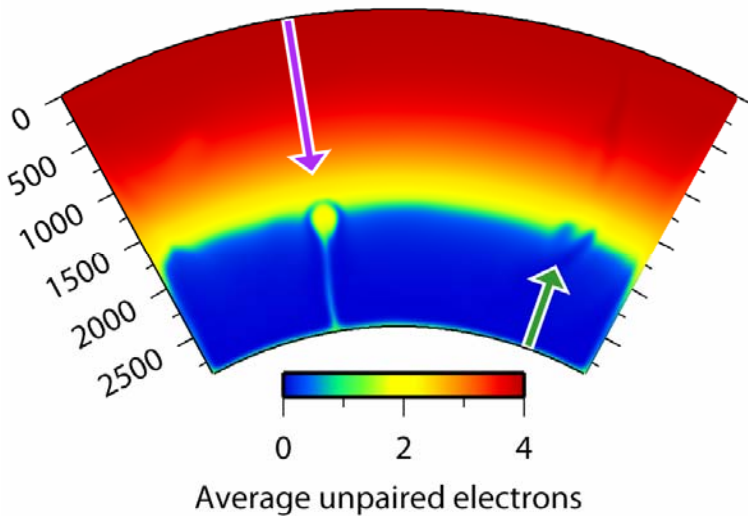
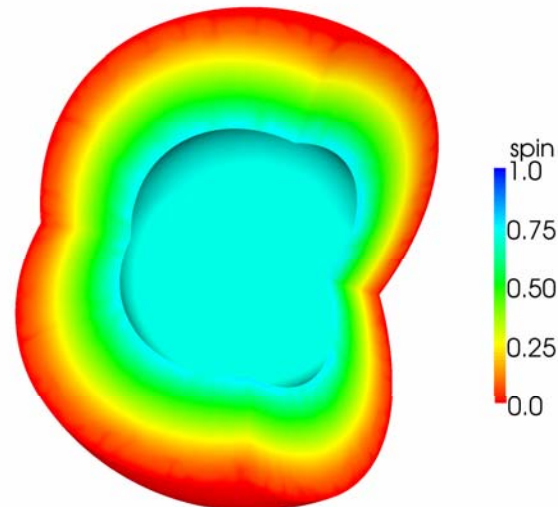
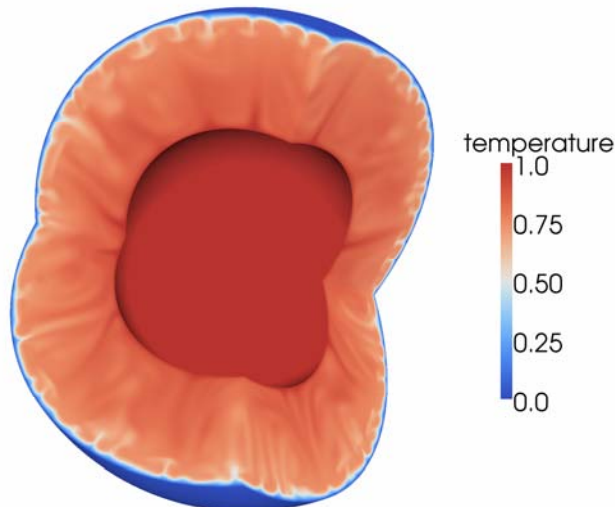


# Enhanced convection and fast plumes in the lower mantle induced by the iron spin transition

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(Left). Hot boundary layer instabilities develop in the high-spin state, and therefore have additional spin-buoyancy as well as thermal



(Left). Spherical geometry, internal heating, and rheological controls determine temperature anomalies and therefore spin-state.