

## **Study of the strike-slip fault geometry from field to remote sensing scale**

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Strike-slip tectonics is a fundamental process affecting many parts of the Earth's lithosphere and resulting in prominent surface expressions. In nature, strike-slip faults form linear and continuous fault systems but are typically segmented, resulting in localised extension/transtension or contraction/transpression as displacement along the boundary fault system is transferred across a variety of discontinuities or steps.

Bends or sidesteps (jogs) in the main strike-slip fault system characteristically produce zones of localised extension (pull-apart basins) or regions of compressional deformation (popups or restraining stepover).

Fault geometry plays a key role in earthquake mechanics: for instance dilational and contractional jogs might arrest the propagation of earthquake ruptures. Therefore, measuring fault network complexity in the field may help understanding of the seismogenic process.

“NOFEAR” ERC project, in which M. Massironi (co-tutorship for remote sensing) is involved, will cover field studies costs in Italian or foreign territories, travel expenses, participations to conferences and courses, and costs for publications.