

## **Understanding the slip characteristic of the San Andreas fault in southern California**

*Philip Nee, Cornell University*

The San Andreas fault (SAF) system accommodates a significant fraction of the relative movement between the Pacific and North American plates. In the past 250 years, no significant earthquake was recorded on the southernmost section of the SAF, and thus there exists a substantial ongoing earthquake hazard. Estimates of its slip deficit rate, made with various geologic and geodetic observations typically fall in the range 15-25 mm/yr, in the vicinity of the San Bernadino Mountains. Assuming the fault system slips at a constant rate of 20mm/yr, a slip deficit of 5 m would have accumulated since the last event, equivalent to a potential Mw 7.5 or larger earthquake. To understand how much strain is accumulating on the southern SAF system during the current interseismic period, we investigate the surface deformation using radar interferometry.