

## Grevena, Greece (1/1)

*Main image:* Differential interferogram

*SAR dates:* 16-Nov-93 and 09-Nov-95

*Separation:* 2 years

### COMMENT

The earthquake event occurred in the Grevena Prefecture of Northern Greece at 11:47 local time on 13th May 1995. The mainshock, measuring 6.6 on the Richter scale, caused over 100 million US dollars' worth of damage over an area of 3,500 km<sup>2</sup>. There were fortunately no deaths as the event occurred on a Saturday when schools and offices were empty.

Two ERS SAR scenes (16-Nov-93 and 09-Nov-95) and a 100m resolution DEM were used to create a differential interferogram. Due to the relatively long temporal separation and the vegetated nature of the ground cover, image coherence was not ideal, only 23%, being highest in the mountainous regions where ground cover had not changed significantly. The interferometric results were validated by ground-truth collected by geodetic survey. A co-seismic model derived and interpolated from GPS measurements of trigonometric survey monuments enabled prediction of the location of the main fault (some 2km below the surface). This model coincided extremely well with the differential interferogram, which was then used to map the displacement field and the fault system more accurately.

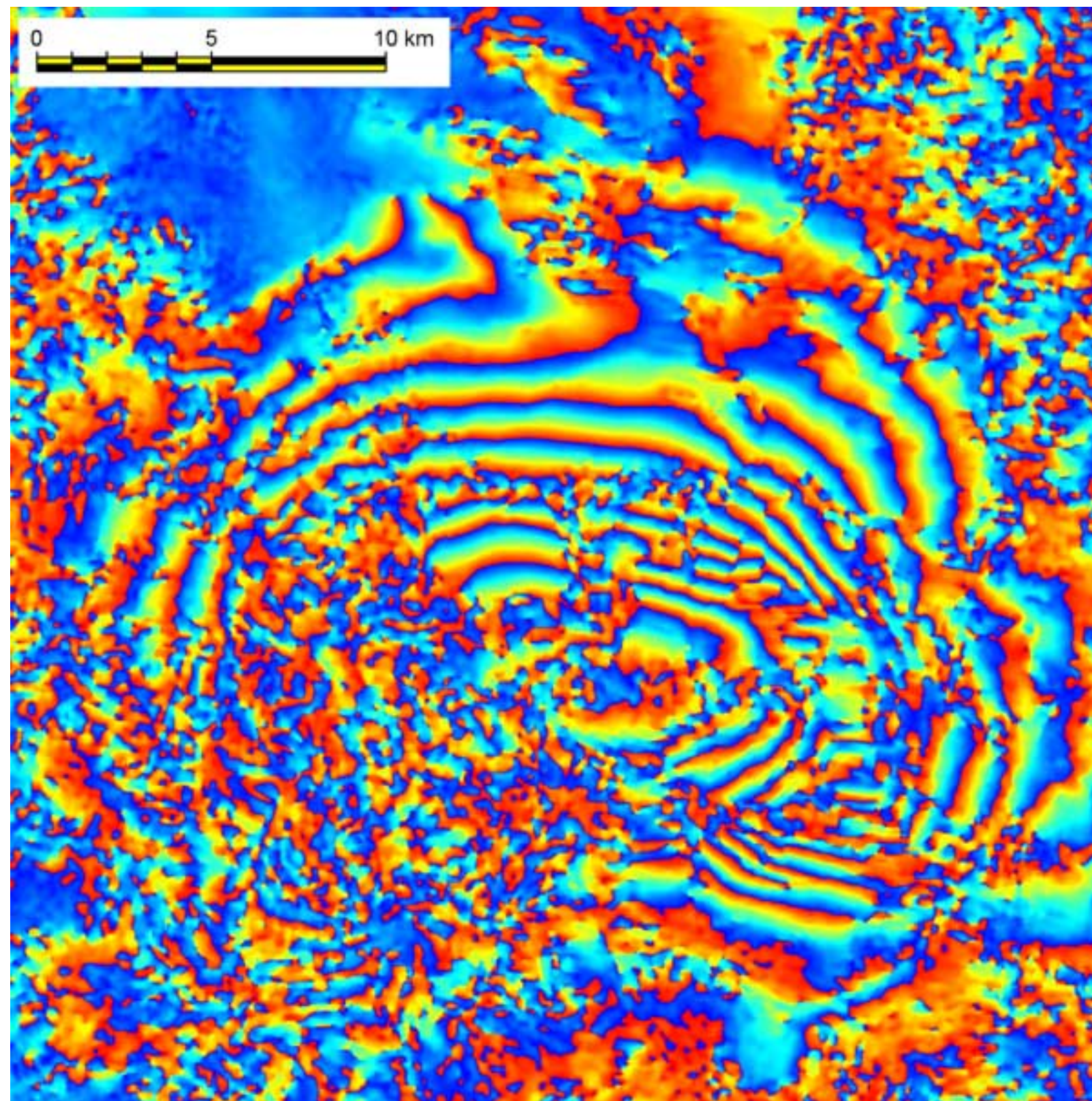


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