## Conference onEuropean Tomadoes and Severe Storms

# The June $4^{\text {th }} 1999$ severe weather episode in San Quirino, Italy: a tornado event? 

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On the morning of June $4^{\text {th }} 1999$ a severe weather event took place in San Quirino (PN), a small village of Friuli-Venezia Giulia in the North East of Italy. This village is located near the piedmont of the Alps, 40 km west from Udine and 60 km north from Venice.

Around 09:00 UTC (11:00 local time) a thunderstorm with an intense hailshaft interested the area of San Quirino. A few minutes later a funnel cloud from a cumulonimbus touched the ground producing damages to houses, trees and greenhouses. The damaged area was quite narrow (about 300 m ) and short (less than 10 km ). No injuries to people were reported.

Several big hailstones (up to $5-6 \mathrm{~cm}$ diameter) produced by the hailstorm where collected and photographed. The event was observed by the C-band ERSA/CSA weather radar of Fossalon di Grado (GO). A few radar images, including a Doppler map which clearly identify the phenomena, will be shown.

This paper includes an overall description of the meteorological situation using the synoptic analysis (AVN), the Udine radiosounding and several mesoscale observations (ERSA/CSA meteorological stations and hailpads, lightings data). A detailed characterisation at the storm scale of the observed phenomena is given on the basis of the available radar data.

All the information collected, together with local farmer's reports, lead us to consider this episode a tornado event.

