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## Comparison of Electromagnetic Signals Before an Earthquake Using the Radio Direction Finding Method. The Case of Po Plain Valley (Italy)

[Valentino Straser](#) , [Daniele Cataldi](#) & [Gabriele Cataldi](#)

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### Abstract

In this study, we present the outcome of a trial of the Radio Direction Finding detection system, aimed at verifying the link between electromagnetic signals detected in Italian monitoring centers from those emitted in tectonically stressed areas. The area studied is in the Po Valley, in Northern Italy, in an area historically affected by seismicity with

earthquakes rarely exceeding magnitude 6. The Radio Direction Finding system, designed to detect the direction of electromagnetic signals, confirmed the applicability of this method for areas subjected to crustal stresses that can evolve into seismic shocks. In the case of this experiment, the signals preceded the seismic events by about 24 h, and the intersection of the colorimetric lines, which appeared in the dynamic spectrograms, coincided with the future epicenter zone of the earthquakes. The seismic occurrence fell within a time window of three days, confirming a well-established trend, that overlapping with previously studied cases.

Keywords

[RDF systems](#)    [Earthquake](#)

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## Author information

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Authors and Affiliations

**UPKL, Rue de La Presse 4, Brussels, Belgium**

Valentino Straser

**Radio Emission Project, Lariano, Rome, Italy**

Daniele Cataldi

**Radio Emission Project, Albano Laziale, Rome, Italy**

Gabriele Cataldi

Corresponding author

Correspondence to [Valentino Straser](#).

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