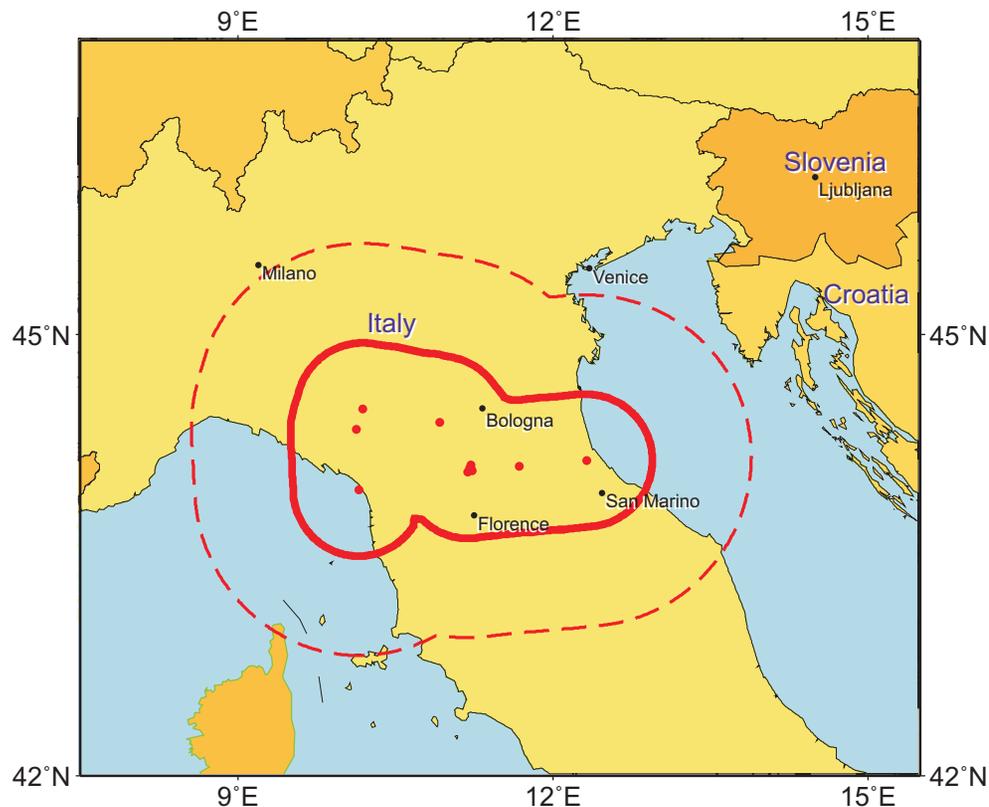


Experiment in prospective earthquake prediction using Reverse Tracing of Precursors (RTP) Prediction #17, December 23, 2008



Red circles show the earthquakes that formed new precursory chain on April 7, 2008. Area of alarm is shown by red contours: solid line is for test A, dashed line is for test B.

The alarm was diagnosed on December 23, 2008, after updating the second step of the RTP algorithm (pattern recognition) using updated catalogue. Now the chain is recognized as precursory one, although it could not be recognized as such in April 2008.

Irrelevant to prediction experiment, but interesting to note are the two earthquakes, $M=5.3$ and $M=5.0$, that happened today, on December 23, 2008, in the area of alarm.

Starting from October 1, 2005 we test in parallel two versions of the prediction algorithm. Test A concerns exactly the same algorithm as before. In test B we made one change: we increased by factor 2.5 the value of the numerical parameter, R , thus expanding the area of alarm.

An earthquake with magnitude $M \geq 5.5$ (maximal value among four listed in the EHDF format of the PDE catalog) is predicted to occur within the time interval 9 months, from April 7, 2008, to January 7, 2009. Area of alarm is shown in the figure.

Estimated probability that a target earthquake will occur at random in the total time-area of the extended alarm is less than 2% in test A and less than 5% in test B. Estimated probability of a false alarm does not exceed 50% in both tests.

Reminder. As you know, earthquake predictions should be released to the public or media only by a proper disaster management authority. Otherwise, prediction may trigger profiteering and disruptive anxiety of population. Accordingly, we open an access to our predictions only to professionals who agreed to comply with the above limitation. This restriction is lifted and prediction becomes publicly available when a target earthquake occurs in the area of alarm, or when the alarm expires, independently of was it correct or wrong.