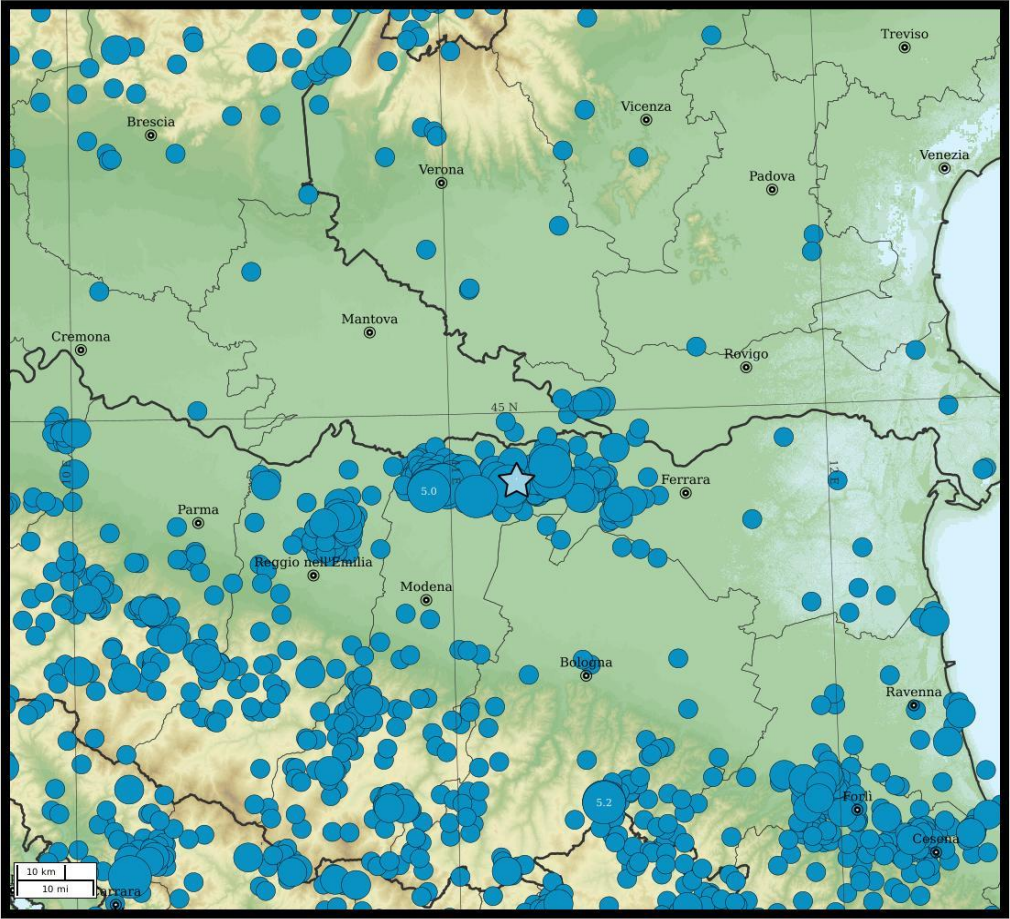


# TODAY'S EARTHQUAKE



I terremoti dal 1985 alla data dell'evento di  
magnitudo ML 3.6 del 2025-07-09 07:43:21 (UTC)

Fonte: <http://terremoti.ingv.it/event/43372332/> - 5 km NE San Felice sul Panaro (MO)



Dati: <http://terremoti.ingv.it/>

Sono riportati i terremoti di  
magnitudo maggiore o uguale 3.0  
localizzati dalla Rete Sismica Nazionale  
dal 1985 fino all'evento in oggetto.

Magnitudo

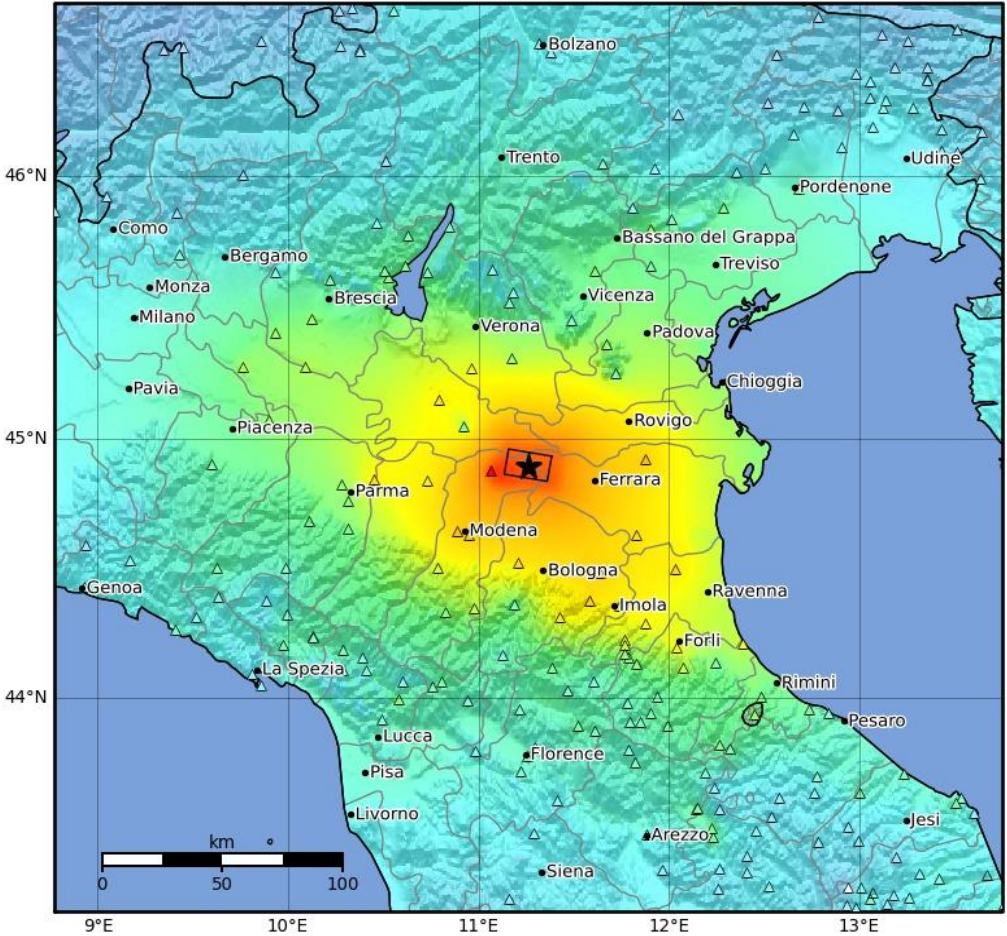


Tempi



# 2012 EMILIA EARTHQUAKE – FAULT AND INTENSITY MAP

Macroseismic Intensity Map INGV  
ShakeMap: 7 km NW Finale Emilia (MO)  
May 20, 2012 02:03:50 UTC M5.8 N44.90 E11.26 Depth: 9.5km ID:772691



SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
DAMAGE	None	None	None	Very light	Light	Moderate	Moderate/heavy	Heavy	Very heavy
PGA(%g)	<0.0556	0.212	0.808	1.97	4.82	11.8	28.7	70.1	>171
PGV(cm/s)	<0.0178	0.0775	0.337	0.898	2.39	6.37	17	45.2	>120
INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based on Faenza and Michelini (2010, 2011) Version 1: Processed 2021-11-15T17:23:30Z  
△ Seismic Instrument ○ Reported Intensity ★ Epicenter □ Rupture

Cronologia delle localizzazioni calcolate								
Tipo	Magnitudo	Tempo origine (UTC)	Latitudine	Longitudine	Profondità (km)	Ora pubblicazione (UTC)	Autore	ID Localizzazione
Rivista Rev100 ★	ML 3.6 ★	2025-07-09 07:43:21	44.8743	11.1738	10	2025-07-09 08:15:02	Sala Sismica INGV-Roma	137882751
Automatica rapida Auto1	ML 4.1	2025-07-09 07:43:13	44.4023	11.2207	0	2025-07-09 07:43:58	Sistema Automatico Earthworm-1	137882011
★ Localizzazione e magnitudo preferite finora.								

Localizing an earthquake is in **inverse problem** based on travel time arrival as well: a nonlinear inverse problem where **we iteratively find the position of the source which best matches the arrival time, knowing the structure of earth**  
In the lab, we know where the source (hammer) is, but we do not know the structure of the soil!

Tempi di arrivo												
SCNL	Time	Uncertainty	Polarity	Evaluation_mode	Phase	Azimuth	Distance(km)	Takeoff_angle	Residual	Wei		
IV.CAVE.HHZ.	2025-07-09T07:43:23.94	0.1	positive	manual	P	266	13.4754	127	-1.29	66		
IV.NDIM.HNZ.	2025-07-09T07:43:25.37	0.6	negative	manual	P	274	21.6672	115	-1.29	32		
IV.SERM.HNZ.	2025-07-09T07:43:25.80	0.1	undecidable	manual	P	32	17.871	119	-0.17	100		
IV.CAVE.HHZ.	2025-07-09T07:43:26.71	3.0	undecidable	manual	S	266	13.4754	127	-0.98	0		
IV.FERS.EHZ.	2025-07-09T07:43:26.79	0.1	undecidable	manual	P	83	29.0487	50	-1.12	70		
IV.SERM.HNZ.	2025-07-09T07:43:26.80	0.1	undecidable	manual	P	32	17.871	119	-0.17	100		

Many other phases are used for both automatic and manual analysis