

1. Research activity (max 1.000 words)

During the third year of Ph.D., I continued the work on characterization of induced seismicity in the Val d'Agri area by the implementation of a structural map and a Pseudo 3D geo-structural model. I performed:

- realization of 7 deep geological sections by the interpretation of seismic lines in Kingdom software;
- building of pseudo 3D model importing data from Kingdom in Petrel Software (formation tops, faults grid and geological sections);
- comparison with recorded seismicity (INGV catalogues).

On the base of the evidences, some final considerations were formulated on two main seismic clusters recorded in the area: cluster 1 at south-west of the Pertusillo Lake and cluster 2 at north-east of Costa Molina structure.

All available data and results on geo-structural and tectonic setting and seismicity were described and discussed in the Ph.D. thesis, during this third year, achieving new insights and innovative elements about the interpretation of the study area in Val d'Agri.

2. Research products

Scientific Publication

- Antoncecchi, I., Ciccone, F., Rossi, G., Agate, G., Colucci, F., Moia, F., Manzo, M., Lanari, R., Bonano, M., De Luca, C., Calabrese, L., Perini, L., Severi P., Pezzo, G., Macini, P., Benetatos, C., Rocca, V., Carminati, E., Billi, A., Petracchini, L. (2020). Soil deformation analysis through fluid-dynamic modelling and DInSAR measurements: a focus on groundwater withdrawal in the Ravenna area (Italy) *Bollettino di Geofisica Teorica ed Applicata -BGTA*, vol. 62, 301-318 DOI 10.4430/bgta035
- Pezzo, G., Petracchini, L., Devoti, R., Maffucci, R., Anderlini, L., Antoncecchi, I., et al. (2020). Active fold-thrust belt to Foreland transition in Northern Adria, Italy, tracked by seismic reflection profiles and GPS offshore data. *Tectonics* 39:e2020TC006425. doi: 10.1029/2020TC006425
- Garcia, A., Faenza, L., Morelli, A. e Antoncecchi, I., (2021) Can Hydrocarbon Extraction from the Crust Enhance or Inhibit Seismicity in Tectonically Active Regions? A Statistical Study in Italy. *Front. Earth Sci.* 9:673124. doi: 10.3389/feart.2021.6731

International Workshop

“Triggered Seismicity: towards scientific improvements” 15.02.2019, 9.30 - 16.00 Università Milano “Bicocca”.