

## Progetti di Ricerca Libera bando 2019

Name	Project Title
Tamburello Giancarlo	ReC-PLUME: Refractive index-based visualization of transparent CO <sub>2</sub> -CH <sub>4</sub> -rich gas plume
Bonforte Alessandro	Extend the spectrum: observation of ELF and microwave emissions associated to volcanic activity
Ganci Gaetana	TUNE - Effusion rate estimates at Etna and Stromboli: constraints imposed by a variety of satellite remote sensing data
Currenti Gilda	Distributed Fibre Optic Sensing for Monitoring Etna Volcano Activity
Scarlato Piergiorgio	Magma dynamics triggering the 3 July and 28 August 2019 paroxysms at Stromboli volcano: A comparative approach based on the ascent rates, timescales and P-T-H <sub>2</sub> O paths of magma
Malagnini Luca	Detecting episodes of crustal fluid diffusion in quasi-real time
Florindo Fabio	Crono- and Magnetostratigraphic study of the Colle Marino succession (Latium): constraints to the tectonic evolution of the Tyrrhenian Sea margin of central Italy and early human frequentation during Lower Pleistocene
Cappello Annalisa	SHIELD – Optimization strategies for lava flow risk reduction at Etna volcano
Neri Marco	Indoor Radon HAZARD in homes built near active Faults on Etna (IRHAFaults)
Petrosino Simona	LAST: Linked Analysis of Seismic and Tiltmeter observables.
Locritani Marina	A multidisciplinary method to study the marine litter dispersion from the Arno river mouth: a study case to support citizen science
Taddeucci Jacopo	PoWAR: a Portable Wind tunnel for volcanic Ash Resuspension
D'Agostino Nicola	Active vertical motion of the Apennines
Isola Ilaria	Paleoclimate variability during Late Holocene in the Central Mediterranean and Balkans: terrestrial and marine archive comparison
Ventura Guido	Imaging the plumbing system of intra-continental volcanoes and fluid crustal reservoirs above stagnant slabs
Macedonio Giovanni	Study of the physical properties of the shallow structure of Vesuvius based on the analysis of seismic data
Carapezza Maria Luisa	Estimating and reducing the environmental effects of natural diffuse soil CO <sub>2</sub> emission in the Rome area

Pompilio Massimo	Time scale of magma transfer within the Stromboli plumbing system
Maccaferri Francesco	VOLC-LABS: Vent Opening Locations at Campi Flegrei, insights from LAB experiments and Simulations. A collaboration project towards physics-based estimates of future eruption sites
Spina Laura	ROUGHER: expeRimental Observations aboUt irregUlar cHannel gEometRies
De Santis Angelo	[L]ithosphere-[A]tmosphere-[I]onosphere [C]oupling [A]nalysis of the recent seismic sequences in Central Italy and California (LAICA Project)
Corsaro Rosa Anna	The Cyclopean Islands (Acitrezza, Catania): a key point to investigate the transition between tholeiitic and alkaline magmatism at Etna
Villani Fabio	Unveiling silent faults in low strain-rates regions through the integration of high-resolution geophysical and seismological analyses.
Isaia Roberto	Structural setting and volcano-tectonic evolution of the Astroni volcano: implication on its present state and dynamics
Todesco Micol	WADE – WAtEr Driven Eruptions
Akinci Aybige	RAGTIME: RAnking of Ground motion models ThrougH Independent Measurements
Anzidei Marco	Ultra high resolution topo-bathymetry of PANarea Islands for volcano Deformation and COASTal hazard scenarios. Acronym: PANDCOAST
Arienzo Ilenia	Sr Isotope investigation and DNA-typing for unravelling human mobility in the Central and Southern Italy
Sandri Laura	EXploring Approaches for stoChasTic modelling of temporal and size distributions of clustered volcanic eruptions, and implications for eruption forecasting (EXACT)
Marra Fabrizio	Combined $^{40}\text{Ar}/^{39}\text{Ar}$ , OSL, ESR/U-Th dating of the Last Interglacial sea-level markers along the southern Latium coast: constraints to regional tectonics and sea-level oscillations
Greco Filippo	Consolidation and development of an absolute gravity and GNSS network in central Italy to improve the multidisciplinary approach to natural risks assessment
Pesci Arianna	A study for independent, fast and low-cost monitoring in the frame of terrestrial long-range SfM digital photogrammetry
De Beni Emanuela	Developing a semi-automatic method for data collection and volcanic hazard assessment in volcano failure prone areas using UAV-derived dense clouds
Melini Daniele	Sea level rise scenarios due to past, present and future ice sheet melting at the global and regional scale

Atzori Simone	Fast Delivery of Deformation Maps and Finite Fault Parameters
Palano Mimmo	Paroxysmal volcanic events and seaward motion at Mt. Etna: an improved picture from a geodetic and seismological perspective
Vassallo Maurizio	Three-dimensional shear-wave velocity imaging by ambient seismic noise tomography in the urban area of Rome city (Central Italy)
Tamaro Umberto	Study of tropospheric delay on Mount Somma-Vesuvius area by means of a dense GPS array and low cost instrumentation for weather, climate, and natural hazard applications
Mattia Gelsomina	Relocatable integrated Cal / Val system for sea observations reprocessing and ocean models evaluation
Dinares-Turell Jaume	The middle Eocene orbitally driven climate record at Gubbio (Umbrian Appenines, Italy): integrated astrochronology and environmental impact (EoGu_astro)
Piochi Monica	An isotope study of S-bearing hydrothermal minerals at the Ischia island (Phlegraean Volcanic Field, Italy): bridging a knowledge gap and giving clues on the volcano dynamics
Kastelic Vanja	Studying Transients in Active Faults – STAF
Liuzzo Marco	Geochemistry of volcanic gases of the Comoros Archipelago – GECO
Moro Marco	Microstructural Analyses of Slip Surfaces in Carbonate-Built Rocks
Smedile Alessandra	In search for tsunami fingerprints along the Campanian coast
Tosi Patrizia	An integrated method for dynamic macroseismic intensity estimate in Italy
Mazzarini Francesco	3D Structural reconstruction of the Plio-Pleistocene evolution of Tuscan-Latium continental shelf: constraints for volcano tectonics
Selvaggi Giulio	A Converted Phase is Haunting Europe
Cocchi Luca	ATOM- Autonomous TOWed wing for Magnetic gradient prospection
Vita Fabio	Development of a Temporary Optical Remote Sensing Network (TORS) for geochemical monitoring of SO <sub>2</sub>