



PROF. Valerio Tramutoli

CURRICULUM SCIENTIFICO:

Nato il 28/12/1957. Laureato in Fisica presso l'Università di Roma la Sapienza è Professore Ordinario (SC:02/C1 - Astronomia, Astrofisica, Fisica della Terra e dei Pianeti; SSD FIS/06 - Fisica per il Sistema Terra e per il Mezzo Circumterrestre) presso la Scuola di Ingegneria dell'Università della Basilicata dove dal 1997 tiene corsi di Telerilevamento Ambientale e di Fisica Generale. Dal 1991 è stato visiting scientist nei principali centri internazionali di osservazione della Terra (tra gli altri: CMS- Centre de Météorologie Spatiale a Lannion - Francia, ECMWF-European Centre for Medium-Range Weather Forecast di Reading UK, University of Wisconsin in Madison - WI, partecipando a progetti e iniziative delle principali agenzie spaziali, tra le quali ESA, NASA, NASDA e ASI. In risposta al bando dell'Agenzia Spaziale Italiana (ASI) del 2002 è coordinatore nazionale del progetto SEISMASS (*Seismic Areas monitoring by Advanced satellite Systems*). Dal 2010 al 2013 ha coordinato il progetto europeo [PRE-EARTHQUAKES](#) finanziato nell'ambito del FP7-GMES-Space Program. E' stato inoltre Principal Investigator in diversi progetti internazionali finanziati dalla NATO e dalla Commissione Europea nel quadro dei programmi Science for Peace, FP6-IST (GRIDCC), FP6-INTAS (STREGEOS), GMES-FP6 ([GMOSS](#)), GMES-FP7 (DORIS-NET, GRAAL), FP7-SPACE ([G-MOSAIC](#)), Erasmus Intensive Lifelong Learning Programme ([FORMAT-EQ](#)), Erasmus+ ([EO4GEO](#)) e Horizon2020-SPACE ([CopHub.AC](#)), dall'International Space Science Institute di [Berna](#) e di [Pechino](#)). Nell'ambito dei bandi PO-FESR Basilicata 2014-2020, dal 2021 coordina il progetto STAC-UP ed è coordinatore scientifico del progetto OD4SA (già ODESSA). La sua attività di ricerca si è focalizzata sullo sviluppo di nuovi sensori e tecniche satellitari per la previsione, il monitoraggio e la mitigazione dei rischi naturali, ambientali e industriali. In tale ambito ha proposto nel 1998 la metodologia originale RAT (ora RST, Robust Satellite Technique) utilizzata con successo in Italia e all'estero per un ampio spettro di applicazioni. E' stato tra i primi scienziati italiani invitati a partecipare, dal 2001, all'IGOS-Geohazard Core Team incaricato (dalle più importanti agenzie spaziali, CEOS, dalla FAO, dall'UNESCO, dall'ICSU, ecc) di definire le strategie per l'osservazione dei geo - hazards per il successivo decennio. Dal 2013 è chair del NEREUS Copernicus/EO WG, dal 2014 membro dell'International Scientific Commission per il lancio di CSES il primo satellite cinese (in collaborazione con ASI) per lo studio dei precursori ionosferici dei terremoti. Nel 2013 e', con il Prof. Peter Zeil dell'Università di Salisburgo il promotore della Rete delle Copernicus Academies Europee. Nel 2018 è stato l'organizzatore della Conferenza Internazionale EMSEV2018 a Potenza. E' referee per le più importanti riviste del settore e valutatore di progetti per agenzie di finanziamento della ricerca a livello europeo ed extra-europeo. Dal 2007 è membro permanente dello IUGG-WG EMSEV del è vice-chair dal 2019. E' autore di oltre 200 lavori scientifici pubblicati su riviste, libri e atti di convegni internazionali. E' stato chair, co-chair organizzatore di sessioni e invited speaker nelle più importanti conferenze internazionali di geofisica (EGU, AGU, IUGG, AOGS, IGARSS). Dal 2021 e Presidente del Comitato Tecnico Scientifico del Consorzio TeRN, dal 2022 di quello del Cluster Lucano dell'Aerospazio.

PUBBLICAZIONI (solo internazionali con revisori anonimi degli ultimi 15 anni, 2007-2021, la lista completa delle oltre 300 pubblicazioni è reperibile in <https://orcid.org/0000-0003-3875-7909>)

Articoli su riviste internazionali con referees anonimi (ISI)

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1. Colonna, R.; Filizzola, C.; Genzano, N.; Lisi, M.; Tramutoli, V. Optimal Setting of Earthquake-Related Ionospheric TEC (Total Electron Content) Anomalies Detection Methods: Long-Term Validation over the Italian Region. *Geosciences* 2023, 13, 150. <https://doi.org/10.3390/geosciences13050150>, ISSN: 20763263.
2. Filizzola, C.; Falconieri, A.; Lacava, T.; Marchese, F.; Masiello, G.; Mazzeo, G.; Pergola, N.; Pietrapertosa, C.; Serio, C.; Tramutoli, V. (2023) Fire Characterization by Using an Original RST-Based Approach for Fire Radiative Power (FRP) Computation. *Fire* 2023, 6, 48. <https://doi.org/10.3390/fire6020048>, ISSN 2571-6255
3. Satriano, V.; Ciancia, E.; Filizzola, C.; Genzano, N.; Lacava, T.; Tramutoli, V. (2023) Landslides Detection and Mapping with an Advanced Multi-Temporal Satellite Optical Technique. *Remote Sens.* 2023, 15, 683. <https://doi.org/10.3390/rs15030683>, ISSN: 2072-4292

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4. Filizzola, C., Carlucci, M. A., Genzano, N., Ciancia, E., Lisi, M., Pergola, N., Ripullone, F., Tramutoli, V. (2022). Robust satellite-based identification and monitoring of forests having undergone climate-change-related



stress. Land, 11(6) doi:10.3390/land11060825. ISSN: 2073-445X

5. Filizzola, Carolina, Angelo Corrado, Nicola Genzano, Mariano Lisi, Nicola Pergola, Roberto Colonna, and Valerio Tramutoli. 2022. "RST Analysis of Anomalous TIR Sequences in Relation with Earthquakes Occurred in Turkey in the Period 2004–2015" Remote Sensing 14, no. 2: 381. <https://doi.org/10.3390/rs14020381>. ISSN: 2072-4292

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6. Marchese, F., Filizzola, C., Lacava, T., Falconieri, A., Faruolo, M., Genzano, N., Mazzeo, G., Pietrapertosa, C., Pergola, N., Tramutoli, V., Neri, M. (2021). Mt. Etna paroxysms of February-April 2021 monitored and quantified through a multi-platform satellite observing system. Remote Sensing, Vol. 13, p.3074, doi.org/10.3390/rs13163074
7. Genzano, N.; Marchese, F.; Neri, M.; Pergola, N.; Tramutoli, V. (2021). Implementation of Robust Satellite Techniques for Volcanoes on ASTER Data under the Google Earth Engine Platform. DOI:10.3390/app11094201. pp.4201. In APPLIED SCIENCES - ISSN:2076-3417 vol. 11 (9).
8. Colonna, R.; Tramutoli, V. A New Model of Solar Illumination of Earth's Atmosphere during Night-Time. Earth 2021, 2, 191-207. ISSN:2673-4834. <https://doi.org/10.3390/earth2020012>
9. Parrot, M., Tramutoli, V., Liu, T. J. Y., Pulinets, S., Ouzounov, D., Genzano, N., Lisi, M., Hattori, K. and Namgaladze, A. (2021) Atmospheric and ionospheric coupling phenomena associated with large earthquakes. Eur. Phys. J. Special Topics 230, pp. 197-225. ISSN:1951-6355 .doi: 10.1140/epjst/e2020-000251-3
10. Genzano, N.; Filizzola, C.; Hattori, K.; Pergola, N.; Tramutoli, V. (2021). Statistical correlation analysis between thermal infrared anomalies observed from MTSATs and large earthquakes occurred in Japan (2005 - 2015). In Journal of Geophysical Research. Solid Earth - ISSN:2169-9356. DOI:10.1029/2020JB020108.
11. Ciancia, E., Lacava, T., Pergola, N., Vellucci, V., Antoine, D., Satriano, V., & Tramutoli, V. (2021). Quantifying the variability of phytoplankton blooms in the nw mediterranean sea with the robust satellite techniques (rst). Remote Sensing, 13(24) doi:10.3390/rs13245151
12. Peleli, S., Kouli, M., Marchese, F., Lacava, T., Vallianatos, F., & Tramutoli, V. (2021). Monitoring temporal variations in the geothermal activity of miocene lesvos volcanic field using remote sensing techniques and MODIS – LST imagery. International Journal of Applied Earth Observation and Geoinformation, 95 doi:10.1016/j.jag.2020.102251

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13. Tramutoli V. and F. Vallianatos, (2020), Foreword: Advances in Multi-Parametric, Time-Dependent Assessment of Seismic Hazard and Earthquakes Forecast, Annals of Geophysics, 63, 5, 2020; doi: 10.4401/ag-8594
14. Martinelli, G., G. Facca, N. Genzano, F. Gherardi, M. Lisi, L. Pierotti, and V. Tramutoli, (2020), Earthquake-Related Signals in Central Italy Detected by Hydrogeochemical and atellite Techniques. Front. Earth Sci. 8:584716. doi: 10.3389/feart.2020.584716
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