Name	**FRANCINI SAVERIO**
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Nationality	Italia
Date of birth	16/09/1992

Current position	Assistant Professor at the University of Florence. Ricercatore a tempo determinato, RTDa. AGR/05
Qualifications obtained	PhD with honors in Scienze Tecnologie e Biotecnologie per la Sostenibilità (University of Tuscia, University of Molise, 24 May 2022). Thesis title: *New approaches and remote sensing tecnhologies for forest disturbance mapping and area estimation.* Master's degree (110 with honors) in "Scienze e tecnologie dei sistemi forestali", LM-73 (University of Florence, 17 October 2018). Bachelor's degree in "Scienze ambientali e naturali" University of Siena (UNISI). L32
Period of study abroad	During my PhD, I spent three months at the University of British Columbia UBC (Vancouver-Canada) working with Professor Nicholas Coops (UBC), and Mike Wulder, Joanne White, and Txomin Hermosilla (Canadian Forest Service). We are still actively collaborating on different papers.
PERSONAL SKILLS	Good Programmer. Good problem-solving capacity. Autonomous and able to learn quickly new things.
MOTHER TONGUE	ITALIAN
SECOND LANGUAGE	ENGLISH
• Reading	GOOD
• Writing	GOOD
• Speaking	GOOD
SOCIAL SKILLS	GOOD COMMUNICATION CAPACITIES. GOOD LOGISTIC CAPACITIES. GOOD TEAM WORKER.
MAIN COMPETENCES	GOOD PROGRAMMER (R, JAVASCRIPT, JAVA). BASICS OF DIFFERENT PROGRAMMING LANGUAGES (PYTHON, VISUAL BASIC, C++, HTML, BATCH). GOOD PROBLEM-SOLVING SKILLS. GOOD KNOWLEDGE OF REMOTE SENSING, IMAGE PROCESSING, AND STATISTICAL ANALYSIS INCLUDING INFERENTIAL STATISTICS. GOOD KNOWLEDGE OF MACHINE LEARNING, DEEP LEARNING, ALGORITHMS IMPLEMENTATION AND MODELS DEVELOPMENT, TRAINING, VALIDATION, AND TESTING. GOOD SCIENTIFIC ARTICLES WRITER. GOOD PROJECT WRITER. GOOD CAPACITY TO ORGANIZE TEAMWORK PRODUCTIVELY.
ARTISTRY COMPETENCES	GOOD PIANO PLAYER, GRADUATION IN THE THEORY OF MUSIC
OTHER COMPETENCES	GOOD CHESS PLAYER (ELO 1500, LICHESS 1950).
AWARDS	Premio per giovani ricercatrici e ricercatori per i migliori articoli pubblicati su riviste scientifiche attinenti alle tematiche forestali e ambientali. Conferito a Saverio Francini per l'articolo *Mappatura automatica dei disturbi forestali avvenuti in Italia negli ultimi 35 anni utilizzando immagini Landsat e Google Earth Engine. https://www.aisf.it/2022/05/06/* *2021 Early career investigator award. Forests, MDPI. https://www.mdpi.com/journal/forests/awards.pdf/0/pdf_42_2021_5_award_63801505cb888.pdf*
PROJECTS INVOLVEMENT	1. SUPERB: Systemic solutions for upscaling of urgent ecosystem restoration for forest-related biodiversity and ecosystem services (SUPERB). I was involved in the preparation of the project which just started. I'll be in charge of developing codes (R and Google Earth Engine GEE) for upscaling different remote sensing analyses. 2. EFINET: The European Forest Information Network I was involved in the preparation of the project and I wrote the first draft of the proposal. I'll be in

charge of developing and testing innovative procedures (GEE) using remote sensing data to estimate forest-related variables and to explore the possibility of constructing a European forest information system.
3. Precision Pop: Sistema di monitoraggio multiscalare a supporto della pioppicoltura di precisione nella regione lombardia
I contribute to this project by elaborating Sentinel-2 data using GEE
4. B-Forest: An information system to support precision forestry
I contribute to this project by developing codes (GEE and R) required for early warning systems and preprocessing of data
5. GO SURF: A decision support system for sustainable forest management.
I contribute to this project by elaborating remote sensing data using R and GEE.
6. MONIPOPLAR: Monitoring system for poplar plantations using remote sensing data. I was in charge of developing an algorithm for the automatic mapping of poplar plantations using Sentinel-2 imagery and deep neural network
7. PRIFORMAN. Shared PRIvate FORest MANagement in Eastern Alps
8. FORWARDS. The ForestWard Observatory to Secure Resilience of European Forests

PRESENTATIONS AT INTERNATIONAL CONFERENCES

Gherardo CHIRICI, Saverio FRANCINI, Francesca GIANNETTI, Gert-Jan NABURS, Cornelius SENF, Rupert SEIDL, Thomas Pugh, Terje GOBAKKEN, Ollie STOCK, Erik NAESSET, Susanne SUVANTO, Lars WASER, Krzysztof Stereńczak, Giovanni D'AMICO, Ruben VALBUENA. Toward an integrated system for monitoring European forests based on remote sensing: first results from European Forest Information Network (EFINET). ForestSAT 2022, Berlin.

Saverio Francini, Ronald E. McRoberts, Giovanni D'Amico, Nicholas C. Coops, Txomin Hermosilla, Joanne C. White, Micheal A. Wulder, Marco Marchetti, Giuseppe Scarascia Mugnozza, Gherardo Chirici. From Sentinel-2 data to forest disturbance mapping and area estimation. ForestSAT 2022, Berlin.

Saverio FRANCINI, Gherardo CHIRICI, Stefano MANCUSO. Global suitability mapping of forest ecosystem services in urban and peri-urban areas. ForestSAT 2022, Berlin.

Francini S and Maroè P. Combining satellite and tree-talker data. Living Planet Symposium, 2022, Bonn (Germany).

Francini S, Gianneti F, Travaglini D, Chirici G (2019) Individuazione dei disturbi forestali in tempo quasi-reale tramite immagini Sentinel-2 e Planet. SISEF

Fantoni G, Bell DM, Mathew G, Gianneti F, Travaglini D, Francini S, Chirici G (2019) Classification of forest tree species in Tuscany using Sentinel-2 multitemporal data and Google Earth Engine platform. SISEF

Fantoni G, Bell DM, Mathew G, Gianneti F, Travaglini D, Francini S, Chirici G (2019) Classification of forest tree species in Tuscany using Sentinel-2 multitemporal data and Google Earth Engine platform. SISEF

Mencucci, M., Bigiarini, S., Giannetti, F., Francini, S., Chirici, G. (2019) Monitoring forest loggings by remote sensing: first experiences and operative solutions. 12° workshop tematico di telerilevamento. AIT-ENEA.

Francini S., Zorzi I., Giannetti F., Chianucci F., Travaglini D., Chirici G., Cocozza C. 2021 In situ (Tree Talker) and remotely-sensed multispectral imagery (Setneinel-2) integration for continuous forest monitoring: the first step toward wall-to-wall mapping of tree functional traits. AIT

CONTRIBUTIONS AT INTERNATIONAL CONFERENCES

Flor Alvarez-Taboada, Lander Sánchez-Berasategui, Youssef Arhrib, Fernando Castedo-Dorado, Joaquín Garnica-López, Saverio Francini, Giovanni D'Amico AN ON-LINE MULTISCALE SYSTEM BASED ON SENTINEL 2 IMAGERY AND ECOPHYSIOLOGICAL SENSORS TO MONITOR FOREST HEALTH IN POPLAR PLANTATIONS. ForestSAT 2022, Berlin.

Elia VANGI, Giovanni D'Amico, Saverio Francini, Costanza Borghi, Francesca Giannetti, Piermaria Corona, Marco Marchetti, Bruno Lasserre, Davide Travaglini, Guido Pelliis, Marina Vitullo, Gherardo Chirici Large-scale high resolution yearly modeling of forest growing stock

volume and above-ground carbon pool. ForestSAT 2022, Berlin.

Francesca GIANNETTI, Matteo Pecchi, Davide Travaglini, Saverio Francini, Giovanni D'Amico, Elia Vangi, Claudia Cocozza, Gherardo Chirici. Estimating VAIA Windstorm Damaged Forest Area in Italy Using Time Series Sentinel-2 Imagery and Continuous Change Detection Algorithms. ForestSAT 2022, Berlin.

Giovanni D'AMICO[1], Ronald E. McRoberts[2], Francesca Giannetti[1], Elia Vangi[1,3], Saverio Francini[1], Gherardo Chirici[1] Effect of lidar coverage and field plot data numerosity on forest growing stock volume estimation. ForestSAT 2022, Berlin.

Giovanni D'Amico, Saverio Francini, Francesca Giannetti, Elia Vangi, Davide Travaglini, Francesco Chianucci, Walter Mattioli, Mirko Grotti, Nicola Puletti, Piermaria Corona, Gherardo Chirici A deep learning approach for automatic mapping of poplar plantations using Sentinel-2 imagery. ForestSAT 2022, Berlin.

Marcello Maranesi, Fabio Salbitano, Marco Marchetti Gherardo Chirici Fabio Del Frate Tor Vergata Francesca Giannetti Saverio Francini Jaro Hofierka Michal Gallay Maria Chiara Pastore Nancy Alvan Romero Daniele Latini Remo Bertani Simone Luppi Pietro Maroè. Ecosystem Services and Urban Forest and Green areas monitoring in the framework of the ESA Multiple Actors Forest Information System – MAFIS project. Living Planet Symposium, 2022, Bonn (Germany).

Multitemporal LiDAR data for forest carbon monitoring in Mediterranean Forest. D'Amico G., Giannetti F., Vangi E., Borghi C., Francini S., Travaglini D., Chirici G. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

The New Hyperspectral Satellite PRISMA: Imagery for Forest Types Discrimination. Vangi E., D'Amico G., Francini S., Giannetti F.,Chirici G., Lasserre B., Marchetti M. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

Monitoring thirty-five years of Italian forest disturbance using Landsat time series. Borghi C., Francini S., Pollastrini M., Bussotti F., Travaglini D., Marchetti M., Munafò M., Scarascia-Mugnozza G., Tonti G., Ottaviano M., Giuliani C., Cavalli A., Vangi E., D'Amico G., Giannetti F., Chirici G. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

Multiscale monitoring of poplar plantations using proximal and remotely-sensed imagery. Giannetti F., Tattoni C., D'Amico G., Francini S., Chirici G., Romano E., Brambilla M., Travaglini D., Vangi E., Chianucci F. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

A Spatial approach for multi-temporal spatial estimation of forest GSV and aboveground carbon pool. A case of study in Tuscany (Italy). Vangi E., D'Amico G., Francini S., Borghi C., Giannetti F., Travaglini D., Chirici G. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

Estimation of Multitemporal Dry Deposition of Air Pollution by Urban Forests at City Scale. Fanara V., Chirici G., Cocozza C., D'Amico G., Giannetti F., Francini S., Salbitano F., Speak A., Vangi E., Travaglini D. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

The Key Role of Multiscale Remote Sensing Data to Develop Forest Decision Support Systems. Giannetti F., Giambastiani Y., Fiorentini S., Travaglini D., Francini S., Vangi E., D'Amico G., Chiesi M., Maselli F., Chirici G. 13/09/2021 – 15/09/2021. X International Conference AIT, Virtual Cagliari

Sampling designs for global forest monitoring using remotely sensed data. Chiara Bocci, Gherardo Chirici, Giovanni D'Amico, Saverio Francini, Emilia Rocco. ITACOSM2022. Survey Methods for Statistical Data Integration and New Data Sources

The use of remotely sensed data in sampling designs for forest monitoring. C. Bocci, G. Chirici, G. D'Amico, S. Francini and E. Rocco. SIS2022 - 51ST SCIENTIFIC MEETING OF THE ITALIAN STATISTICAL SOCIETY

Sampling designs for forest monitoring using remote sensing data. Chiara Bocci, Gherardo Chirici , Saverio Francini , Emilia Rocco. RSS International Conference 2022

PRECISIONPOP: a multi-scale monitoring system for poplar plantations integrating field, aerial, and satellite remote sensing. Francesco Chianucci, Francesca Giannetti, Clara Tattoni, Nicola Puletti, Achille Giorcelli, Carlo Bisaglia, Elio Romano, Massimo Brambilla, Piermario Chiarabaglio, Massimo Gennaro, Giovanni d'Amico, Saverio Francini, Walter Mattioli, Domenico Coaloa, Piermaria Corona, and Gherardo Chirici. EGU 2022

COURSES HELD

1. Laboratorio di Telerilevamento Forestale (Curriculum: Tecnologie per la pianificazione e del paesaggio forestale - E77) 2019-2020
Settore Scientifico Disciplinare AGR-05

2. Laboratorio di Telerilevamento Forestale (Curriculum: Tecnologie per la pianificazione e del paesaggio forestale - E77) 2020-2021
Settore Scientifico Disciplinare AGR-05

3. Laboratorio di Telerilevamento Forestale (Curriculum: Tecnologie per la pianificazione e del paesaggio forestale - E77) 2021-2022
Settore Scientifico Disciplinare AGR-05

4. Laboratorio di Telerilevamento Forestale (Curriculum: Tecnologie per la pianificazione e del paesaggio forestale - E77) 2022-2023
Settore Scientifico Disciplinare AGR-05

5. Inventati e Telerilevamento B024366 (B102). Settore Scientifico Disciplinare AGR-05. 2021-2022

6. Google Earth Engine networking and workshop day. 2021-04-08. Florence. Introduction to Google Earth Engine.

7. Google Earth Engine Summer School. 2021-09-13/2021-09-17.

8. GEE for large-area disturbance mapping. Saverio Francini. 11-May-2022. Remote Sensing Lectures "Remote sensing of forest disturbances".

COLLABORATIONS WITH INTERNATIONAL TOP SCIENTISTS

Mike Wulder. Canadian Forest Service
https://www.scopus.com/authid/detail.uri?authorId=57208357584
and Joanne White. Canadian Forest Service
https://www.scopus.com/authid/detail.uri?authorId=7405251438
We worked together on the implementation of the Best Available Pixel Procedure (White et al., 2014) on Google Earth Engine (Gorelick et al., 2017).

Noel Gorelick. Google.
https://www.scopus.com/authid/detail.uri?authorId=57189368502
We are working together on the implementation of the Composite To Change algorithm (Hermosilla et al. 2015) on Google Earth Engine

Nicholas Coops. University of British Columbia (Vancouver-Canada)
https://www.scopus.com/authid/detail.uri?authorId=54790508000
Nicholas had me in his lab (Integrated Remote Sensing Studio) during my PhD and we are still collaborating on different projects and scientific articles.

Ronald. E. McRoberts. The University of Minnesota USA.
https://www.scopus.com/authid/detail.uri?authorId=6701363691
We are working on different papers to study and implement statistically robust estimators using Remote Sensing-derived maps to estimate forest disturbance areas and relative confidence intervals.

SOFTWARES DEVELOPED

Google Earth Engine and R implementation of the snowwarp procedure (https://www.sciencedirect.com/science/article/abs/pii/S0034425718303626). Berman, E.E., Francini, S., Coops, N.C. (2020). snowwarp. R package. https://github.com/bermane/snowwarp

bap. A Google Earth Engine application for Best Available Pixel Composite Calculation. https://github.com/saveriofrancini/bap. Francini, S., Hermosilla, T., Coops, N., White, J., Chirici, G., Wulder, M.

C2C-Java. Java codes implementing the Composite-To-Change temporal segmentation algorithm

TreeTalkersCheck. An R alert-system package to daily monitoring of tree talkers devices. https://github.com/saveriofrancini/TreeTalkersCheck.

3I3D-GEE. A Google Earth Engine implementation of the 3I3D algorithm. This user interface allows detects forest changes at a global scale and outputs products that can be used to calculate disturbed area estimates. https://code.earthengine.google.com/?accept_repo=users/sfrancini/S23I3D

AreaEstimator3I3DGEE. An R package to calculate area estimates using 3I3D-GEE outputs. https://github.com/saveriofrancini/AreaEstimator3I3DGEE.

PlanetScopeR. An R package for downloading and preprocessing freely available visualization PlanetScope imagery over large areas. This package was used in Francini et al., (2021, https://doi.org/10.1080/22797254.2020.1806734)

Francini S., Sentinel-2 today. A Google Earth Engine application for visualization of Sentinel-2 imagery acquired in the last 48 hours. https://geolabforest.com/saverio.francini/S2today.html

Francini S., Sentinel-2 visualizer. A Google Earth Engine application for the construction of cloud-free composites and visualization of different bands combinations. https://saveriofrancini.users.earthengine.app/view/s2-composites-visualizer

SCIENTIFIC PUBLICATIONS

1. Ascoli D, Chirici G, Francini S, Marchetti M, Motta R, Vacchiano G (2021). Prelievi forestali in Europa: un sano dibattito scientifico. Forest@ 18: 35-37. doi: 10.3832/efor3892-018
2. Borghi, C., Francini, S.*, McRoberts, R. E., Parisi, F., Lombardi, F., Nocentini, S., Maltoni, A., Travaglini, D., & Chirici, G. (2023). Country-wide assessment of biodiversity, naturalness, and old-growth status using National Forest Inventory data. European Journal of Forest Research. https://doi.org/10.1007/s10342-023-01620-6
3. Cavalli A, Francini S*, Cecili G, Cocozza C, Congedo L, Falanga V, Spadoni GL, Maesano M, Munafò M, Chirici G, Scarascia Mugnozza G (2022). Afforestation monitoring through automatic analysis of 36-years Landsat Best Available Composites. iForest 15: 220-228. - doi: 10.3832/ifor4043-015
4. Chirici, G., Giannetti, F., Mazza, E. Francini S., et al. Monitoring clearcutting and subsequent rapid recovery in Mediterranean coppice forests with Landsat time series. Annals of Forest Science 77, 40 (2020). https://doi.org/10.1007/s13595-020-00936-2
5. Chirici, G., Giannetti, F., Travaglini, D., Nocentini, S., Francini, S., D'Amico, G., Calvo, E., et al. 2019. "Forest Damage Inventory After the "Vaia" Storm in Italy." Forest - Rivista Di Selvicoltura Ed Ecologia Forestale 16 (February): 3–9. https://doi.org/10.3832/efor3070-016.
6. D'Amico G, Vangi E, Francini S., Giannetti F, Nicolaci A, Travaglini D, Massai L, Giambastiani Y, Terranova C, Chirici G (2021). Are we ready for a National Forest Information System? State of the art of forest maps and airborne laser scanning data availability in Italy. iForest 14: 144-154. - doi: 10.3832/ifor3648-014
7. D'Amico G. , Francini S*., Giannetti F., Vangi E., Travaglini D., Chianucci F., Mattioli W., Grotti M., Puletti N, Corona P, Chirici G. A deep learning approach for automatic mapping of poplar plantations using Sentinel-2 imagery, GIScience & Remote Sensing, DOI: 10.1080/15481603.2021.1988427
8. Laurin, V. G., Francini, S*., Penna, D., Zuecco, G., Chirici, G., Berman, E., Coops, N., Castelli, G., Bresci, E., Preti, F., Valentini, R. 2022. SnowWarp: An open science and open data tool for daily monitoring of snow dynamics. Environmental Modelling & Software. https://doi.org/10.1016/j.envsoft.2022.105477.
9. Francini S, D'Amico G, Vangi E, Borghi C, Chirici G. Integrating GEDI and Landsat: Spaceborne Lidar and Four Decades of Optical Imagery for the Analysis of Forest Disturbances and Biomass Changes in Italy. *Sensors*. 2022; 22(5):2015. https://doi.org/10.3390/s22052015
10. Francini S., D'Amico G, Mencucci M, Seri G, Gravano E, Chirici G (2021). Telerilevamento e procedure automatiche: validi strumenti di supporto al monitoraggio delle utilizzazioni forestali. Forest@ 18: 27-34. - doi: 10.3832/efor3835-018
11. Francini S., McRoberts, R., Giannetti, F., Marchetti, M., Scarascia, G., Chirici. G. 2021. The Three Indices Three Dimensions (3I3D) algorithm: a new method for forest disturbance mapping and area estimation based on optical remotely sensed imagery, International Journal of Remote Sensing, 42:12, 4693-4711, DOI: 10.1080/01431161.2021.1899334
12. Francini, S., D'Amico, G., McRoberts, R., Marchetti, M., Scarascia, G., Chirici, G. 2022 An open science-open data approach for the statistically robust estimation of forest disturbance area. International Journal of Applied Earth Observation. https://doi.org/10.1016/j.jag.2021.102663
13. Francini, S., McRoberts, R., Giannetti, F., Mencucci, M., Marchetti, M., Scarascia, G., Chirici, G. 2020. Near-real time forest change detection using PlanetScope imagery. European Journal of Remote

Sensing, 53:1, 233-244, DOI: 10.1080/22797254.2020.1806734

14. Francini, S., Borghi, C., D'Amico, G., Santi, S., Travaglini, D. 2022. Mappatura dei cambiamenti forestali avvenuti in Italia negli ultimi 35 anni utilizzando immagini Landsat e Google Earth Engine. Italia forestale e montana.

15. Francini, S and Chirici, G. A Sentinel-2 derived dataset of forest disturbances occurred in Italy between 2017 and 2020. 2022. Data in Brief. https://doi.org/10.1016/j.dib.2022.108297.

16. Giannetti F, Pegna R, Francini S, McRoberts RE, Travaglini D, Marchetti M, Scarascia Mugnozza G, Chirici G. A New Method for Automated Clearcut Disturbance Detection in Mediterranean Coppice Forests Using Landsat Time Series. Remote Sensing. 2020; 12(22):3720. https://doi.org/10.3390/rs12223720

17. Giannetti, F.; Pecchi, M.; Travaglini, D.; Francini, S., D'Amico, G.; Vangi, E.; Cocozza, C.; Chirici, G. Estimating VAIA Windstorm Damaged Forest Area in Italy Using Time Series Sentinel-2 Imagery and Continuous Change Detection Algorithms. Forests 2021, 12, 680. https://doi.org/10.3390/f12060680

18. Giovanni D'Amico, Ronald E. McRoberts, Francesca Giannetti, Elia Vangi, Francini, S., & Gherardo Chirici (2022) Effects of lidar coverage and field plot data numerosity on forest growing stock volume estimation, European Journal of Remote Sensing, DOI: 10.1080/22797254.2022.2042397

19. Hawryło P, Francini S, Chirici G, Giannetti F, Parkitna K, Krok G, Mitelsztedt K, Lisańczuk M, Stereńczak K, Ciesielski M, Wężyk P, Socha J. The Use of Remotely Sensed Data and Polish NFI Plots for Prediction of Growing Stock Volume Using Different Predictive Methods. Remote Sensing. 2020; 12(20):3331. https://doi.org/10.3390/rs12203331

20. Marcelli A., Mattioli W., Puletti N., Chianucci F., Gianelle D., Grotti M., Chirici G., D' Amico G., Francini S., Travaglini D., Fattorini L., Corona P. (2020). Large-scale two-phase estimation of wood production by poplar plantations exploiting Sentinel-2 data as auxiliary information. Silva Fennica vol. 54 no. 2 article id 10247. https://doi.org/10.14214/sf.10247

21. Palahí, M., Valbuena, R., …., Francini S., et al. Concerns about reported harvests in European forests. Nature 592, E15–E17 (2021). https://doi.org/10.1038/s41586-021-03292-x

22. Parisi F., Francini S*., Borghi C., Chirici G. 2022. An open and georeferenced dataset of forest structural attributes and microhabitats in central and southern Apennines (Italy). Data in brief. https://doi.org/10.1016/j.dib.2022.108445

23. Parisi F., Vangi E., Francini S., Chirici G., Travaglini D.,, Marchetti M., Tognetti R. 2022. Monitoring the abundance of saproxylic red-listed species in a managed beech forest by landsat temporal metrics. Forest Ecosystems. https://doi.org/10.1016/j.fecs.2022.100050.

24. Sali, M.; Boschetti, M.; Chirici, G.; Francini, S.; Giannetti, F.; Salis, M.; Arca, B.; Pellizzaro, G.; Duce, P.; Stroppiana, D. An Automatic Algorithm for Mapping Burned Areas from Sentinel Data in Mediterranean Europe: Analysis of 2021 Major Fire Events in Italy and Greece. *Environ. Sci. Proc.* 2022, *17*, 106. https://doi.org/10.3390/environsciproc2022017106

25. Vaglio, G., Francini, S., Luti, T., Chirici, G., Pirotti, F., Papale, D., Satellite open data to monitor forest damage caused by extreme climate-induced events: a case study of the Vaia storm in Northern Italy, Forestry: An International Journal of Forest Research, Volume 94, Issue 3, July 2021, Pages 407–416, https://doi.org/10.1093/forestry/cpaa043

26. Vangi, E.; D'Amico, G.; Francini, S.; Giannetti, F.; Lasserre, B.; Marchetti, M.; McRoberts, R.E.; Chirici, G. The Effect of Forest Mask Quality in the Wall-to-Wall Estimation of Growing Stock Volume. Remote Sens. 2021, 13, 1038. https://doi.org/10.3390/rs13051038

27. Vangi, E.; D'Amico, G.; Francini, S.; Giannetti, F.; Lasserre, B.; Marchetti, M.; Chirici, G. The New Hyperspectral Satellite PRISMA: Imagery for Forest Types Discrimination. Sensors 2021, 21, 1182. https://doi.org/10.3390/s21041182

28. Zorzi I, Francini S**, Chirici G, Cocozza C. 2021. The TreeTalkersCheck R package: an automatic daily routine to check physiological traits of trees in the forest. Ecological Informatics. https://doi.org/10.1016/j.ecoinf.2021.101433

29. Vangi, E., D'Amico, G., Francini, S., Borghi, C., Giannetti, F., Corona, P., Marchetti, M., Travaglini, D., Pellis, G., Vitullo, M., & Chirici, G. (2023). LARGE-SCALE high-resolution yearly modeling of forest growing stock volume and above-ground carbon pool [Article]. Environmental Modelling and Software, 159. https://doi.org/10.1016/j.envsoft.2022.105580

30. Basile, M., Parisi, F., Tognetti, R., Francini, S., Lombardi, F., Marchetti, M., Travaglini, D., De Santis, E., & Chirici, G. (2023). Diversity of beetle species and functional traits along gradients of deadwood suggests weak environmental filtering [Article]. Forest Ecosystems, 10. https://doi.org/10.1016/j.fecs.2023.100090

31. Parisi, F., Vangi, E., Francini, S., D'Amico, G., Chirici, G., Marchetti, M., Lombardi, F., Travaglini, D., Ravera, S., De Santis, E., & Tognetti, R. (2023). Sentinel-2 time series analysis for monitoring multi-taxon biodiversity in mountain beech forests [Article]. Frontiers in Forests and Global Change, 6. https://doi.org/10.3389/ffgc.2023.1020477

32. Francini, S., Vangi, E., D'Amico, G., Cencini, G., Monari, C., & Chirici, G. (2023). Mapping and Estimation of Carbon Dioxide Storage in Forest Plantations. The Contribution of the Sentinel-2 Time Series in Increasing Estimates Precision [Book chapter]. Springer Proceedings in Earth and Environmental Sciences, Part F639, 403–413. https://doi.org/10.1007/978-3-031-25840-4_47

33. Arhrib, Y. J., Francini, S., D'Amico, G., Castedo-Dorado, F., Garnica-López, J., & Álvarez-Taboada, M. F. (2023). Web Application Based on Sentinel-2 Satellite Imagery for Water Stress Detection and Monitoring in Poplar Plantations [Book chapter]. Springer Proceedings in Earth and Environmental Sciences, Part F639, 335–342. https://doi.org/10.1007/978-3-031-25840-4_38

34. D'Amico, G., Francini, S., Parisi, F., Vangi, E., De Santis, E., Travaglini, D., & Chirici, G. (2023). Multitemporal Optical Remote Sensing to Support Forest Health Condition Assessment of Mediterranean Pine Forests in Italy [Book chapter]. Springer Proceedings in Earth and Environmental Sciences, Part

F639, 113–123. https://doi.org/10.1007/978-3-031-25840-4_15

35. Sabatelli, S., Parisi, F., Vangi, E., Francini, S., D'Amico, G., Chirici, G., Travaglini, D., Rignanese, D., Muambalo, K., & Audisio, P. (2023). RELATIONSHIP BETWEEN TREE-RELATED MICROHABITATS AND THE CAPTURES OBTAINED USING DIFFERENT TRAP METHODS FOR LARGE THREATENED SAPROXYLIC BEETLES [Article]. Redia, 106, 45–56. https://doi.org/10.19263/REDIA-106.23.06

36. Cavalli, A., Francini, S., McRoberts, R. E., Falanga, V., Congedo, L., De Fioravante, P., Maesano, M., Munafò, M., Chirici, G., & Scarascia Mugnozza, G. (2023). Estimating Afforestation Area Using Landsat Time Series and Photointerpreted Datasets [Article]. Remote Sensing, 15(4). https://doi.org/10.3390/rs15040923

37. Vangi, E., D'Amico, G., Francini, S., & Chirici, G. (2023). GEDI4R: an R package for NASA's GEDI level 4 A data downloading, processing and visualization [Article]. Earth Science Informatics, 16(1), 1109–1117. https://doi.org/10.1007/s12145-022-00915-3

38. Francini, S., Cavalli, A., D'Amico, G., McRoberts, R. E., Maesano, M., Munafò, M., Scarascia Mugnozza, G., & Chirici, G. (2023). Reusing Remote Sensing-Based Validation Data: Comparing Direct and Indirect Approaches for Afforestation Monitoring [Article]. Remote Sensing, 15(6). https://doi.org/10.3390/rs15061638

39. Parisi, F., Mazziotta, A., Vangi, E., Tognetti, R., Travaglini, D., Marchetti, M., D'amico, G., Francini, S., Borghi, C., & Chirici, G. (2023). Exposure elevation and forest structure predict the abundance of saproxylic beetles' communities in mountain managed beech forests [Article]. IForest, 16(3), 155–164. https://doi.org/10.3832/ifor4264-016

40. Bozzini, A., Francini, S., Chirici, G., Battisti, A., & Faccoli, M. (2023). Spruce Bark Beetle Outbreak Prediction through Automatic Classification of Sentinel-2 Imagery [Article]. Forests, 14(6). https://doi.org/10.3390/f14061116

41. Francini, S., Cocozza, C., Hölttä, T., Lintunen, A., Paljakka, T., Chirici, G., Traversi, M. L., & Giovannelli, A. (2023). A temporal segmentation approach for dendrometers signal-to-noise discrimination [Article]. Computers and Electronics in Agriculture, 210. https://doi.org/10.1016/j.compag.2023.107925

42. Francini, S., Hermosilla, T., Coops, N. C., Wulder, M. A., White, J. C., & Chirici, G. (2023). An assessment approach for pixel-based image composites [Article]. ISPRS Journal of Photogrammetry and Remote Sensing, 202, 1–12. https://doi.org/10.1016/j.isprsjprs.2023.06.002

43. Spadoni, G. L., Moris, J. V., Vacchiano, G., Elia, M., Garbarino, M., Sibona, E., Tomao, A., Barbati, A., Sallustio, L., Salvati, L., Ferrara, C., Francini, S., Bonis, E., Dalla Vecchia, I., Strollo, A., Di Leginio, M., Munafò, M., Chirici, G., Romano, R., … Ascoli, D. (2023). Active governance of agro-pastoral, forest and protected areas mitigates wildfire impacts in Italy [Article]. Science of the Total Environment, 890. https://doi.org/10.1016/j.scitotenv.2023.164281

44. Vangi, E., D'amico, G., Francini, S., Borghi, C., Giannetti, F., Travaglini, D., Pellis, G., Vitullo, M., & Chirici, G. (2021). A SPATIAL APPROACH FOR MULTI-TEMPORAL ESTIMATION OF FOREST GROWING STOCK VOLUME AND ABOVEGROUND CARBON POOL. A CASE STUDY IN TUSCANY (ITALY). [Article]. Trends in Earth Observation, 2, 94–98. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160591722&partnerID=40&md5=0aae63c9ed56a23a074b73855241450d

45. D'Amico, G., Giannetti, F., Vangi, E., Borghi, C., Francini, S., Travaglini, D., & Chirici, G. (2021). Multitemporal LiDAR data for forest carbon monitoring in Mediterranean Forest [Article]. Trends in Earth Observation, 2, 116–119. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160641670&partnerID=40&md5=49cadc29ff9c5c7f4e1d93c43c609e5b

46. Fanara, V., Chirici, G., Cocozza, C., D'amico, G., Giannetti, F., Francini, S., Salbitano, F., Speak, A., Vangi, E., & Travaglini, D. (2021). ESTIMATION OF MULTITEMPORAL DRY DEPOSITION OF AIR POLLUTION BY URBAN FORESTS AT CITY SCALE [Article]. Trends in Earth Observation, 2, 153–156. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160660393&partnerID=40&md5=ae9bf9873771d1a1399234aec40e9385

47. Borghi, C., Francini, S., Pollastrini, M., Bussotti, F., Travaglini, D., Marchetti, M., Munafò, M., Scarascia-Mugnozza, G., Tonti, D., Ottaviano, M., Giuliani, C., Cavalli, A., Vangi, E., D'amico, G., Giannetti, F., & Chirici, G. (2021). MONITORING THIRTY-FIVE YEARS OF ITALIAN FOREST DISTURBANCE USING LANDSAT TIME SERIES [Article]. Trends in Earth Observation, 2, 112–115. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160663467&partnerID=40&md5=489e3afa0d2feb61684313465590d145

48. Francini, S., Zorzi, I., Giannetti, F., Chianucci, F., Travaglini, D., Chirici, G., & Cocozza, C. (2021). IN SITU (TREE TALKER) AND REMOTELY-SENSED MULTISPECTRAL IMAGERY (SENTINEL-2) INTEGRATION FOR CONTINUOUS FOREST MONITORING: THE FIRST STEP TOWARD WALL-TO-WALL MAPPING OF TREE FUNCTIONAL TRAITS [Article]. Trends in Earth Observation, 2, 108–111. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160672293&partnerID=40&md5=a57cc535debd28b52eab87ff2e30731b

49. Hermosilla, T., Francini, S., Nicolau, A. P., Wulder, M. A., White, J. C., Coops, N. C., & Chirici, G. (2024). Clouds and Image Compositing. In J. A. Cardille, M. A. Crowley, D. Saah, & N. E. Clinton (Eds.), Cloud-Based Remote Sensing with Google Earth Engine: Fundamentals and Applications (pp. 279–302). Springer International Publishing. https://doi.org/10.1007/978-3-031-26588-4_15

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