

CURRICULUM VITAE ET STUDIORUM

Domenico Vitale

domenico.vitale@uniroma1.it

CURRENT POSITION

- Senior researcher (ricercatore a tempo determinato tipologia B, art 24, comma 3, Legge 240/2010, RTD-B) in Statistics, GSD 13/STAT-01 (ex settore concorsuale 13/D1) - settore scientifico disciplinare STAT-01/A (ex SSD SECS-S/01), at MEMOTEF Department, School of Economics, Sapienza University of Rome, Italy (since 15/12/2022)
- Member of the Doctoral School in Models for the Economy and Finance (DOT1326JSD), School of Economics, Sapienza University of Rome (since 04/05/2023)

FORMER POSITION

- 04/09/2019 - 14/12/2022 Research collaborator at the Euro-Mediterranean Center on Climate Change (CMCC), IAFES Division, Viterbo, Italy. The research activity concerned the design, development, and testing of new statistical methodologies for quality control and data processing within the ICOS research infrastructure.
- 01/06/2013 - 31/05/2019 Research fellow at the University of Tuscia, DIBAF, Viterbo. The research activity concerned the development of statistical methodologies for the processing and quality control of Eddy Covariance data, particularly for managing near real-time (NRT) acquisitions and their assimilation into land surface models (LSM).
- 01/07/2011 - 31/05/2013 Research collaborator at Consiglio per la Ricerca in Agricoltura, Unità di ricerca per i sistemi colturali degli ambienti caldo-aridi, Bari, Italy. The research focused on statistical methods for analysing climatic and micrometeorological time series.
- 01/01/2008 - 31/12/2010 PhD Students in Statistics (GSD 13/STAT-01, SSD STAT-01/A; ex 13/D1 SECS-S/01 - Statistica) at the Department of Statistics Carlo Cecchi, School of Economics, University of Bari, Italy. The research interests include multivariate time series analysis, causal inference, stochastic processes with application to global warming and climate change.
- 01/12/2006 - 31/12/2007 Research collaborator at Consiglio per la Ricerca in Agricoltura, Unità di ricerca per i sistemi colturali degli ambienti caldo-aridi, Bari, Italy. The research focused on statistical methods for analysing climatic and micrometeorological time series.

EDUCATION AND QUALIFICATIONS

- 04/07/2025 National Scientific Qualification (ASN-Abilitazione Scientifica Nazionale) for the position of Associate Professor in GSD 13/STAT-01, SSD STAT-01/A (formerly 13/D1 SECS-S/01 - Statistica). Valid until 04/07/2037.
- 10/06/2025 Certificate of University Expert Teacher for the Implementation of Highly Innovative Teaching - QUID Training Project of Sapienza University of Rome.
- 17/09/2013 Qualification for Teaching Mathematics (A26, formerly A047) in upper secondary education, Università degli Studi di Bari.
- 05-07-2011 PhD in Statistics (SECS-S/01) at the School of Economics, University of Bari, Italy. Thesis title: Proprietà stocastiche delle serie storiche climatiche. Cointegrazione e volatilità non stazionaria.

- 31/10/2007 Master in Business Administration at Istituto Adriano Olivetti (ISTAO), Ancona, Italy.
- 17/10/2005 M.Sc. in Statistics and Economics at University of Bari, Italy, School of Economics (110/110 *cum laude*). Thesis title: Analisi di dati territoriali ed ambientali. Analisi statistica sulla qualità delle acque di falda in Puglia.

AFFILIATION TO SCIENTIFIC ASSOCIATIONS

- Member of the Società Italiana di Statistica since 07/2020
- Member of GRASPA - Gruppo di Ricerca per le Applicazioni della Statistica ai Problemi Ambientali since 07/2020
- Member of The International Environmetrics Society (TIES) since 01/2022

DIDACTIC ACTIVITY

- 2009/2010 AY 12-hour practical training of Economic Statistics (course instructor Prof. A Mastrodonato). School of Economics, University of Bari.
- 2009/2010 AY 12-hour practical training of Metodi statistici per la finanza e le assicurazioni (course instructor Prof. M Bilancia). School of Economics, University of Bari.
- 2019-2020 SY Teacher of Maths at Liceo Scientifico S. Pertini, Ladispoli, Rome
- 2020-2021 SY Teacher of Maths at Liceo Scientifico S. Pertini, Ladispoli, Rome
- 2021-2022 SY Teacher of Maths at Liceo Scientifico S. Pertini, Ladispoli, Rome
- 2022-2023 SY (up to 14-12-2022) Teacher of Maths at Liceo Scientifico S. Pertini, Ladispoli, Rome
- 05/05/2023 4-hour seminar entitled A short introduction to VAR and VECM models with Application in R. School of Economics, Sapienza University of Rome.
- 2023/24 AY Statistica per l'ambiente e la società (24 h). School of Economics, Sapienza University of Rome (Latina).
- 2023/24 AY Introduzione ai dati spaziali (24 h). Faculty of Economics, Sapienza University of Rome.
- 2023/24 AY Metodi e strumenti di analisi del mercato del lavoro e delle dinamiche occupazionali (24 h). Sapienza University of Rome.
- 2023/24 AY 12-hour PhD course entitled Handling Missing Values in Data Mining: An Introduction to Multiple Imputation. School of Economics, Sapienza University of Rome.
- 2024/25 AY Statistica di base (24 h). School of Economics, Sapienza University of Rome.
- 2024/25 AY Introduzione ai dati spaziali (24 h). School of Economics, Sapienza University of Rome.
- 2024/25 AY Analisi delle Serie Storiche (48 h). School of Economics, Sapienza University of Rome.

PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

- 12/2006 to 12/2007 Participation in the activities of the research project AQUATER founded by MiPAAF (n. 209/7303/05)
- 07/2011 to 04/2012 Participation in the activities of the research project BIOSEA 'Optimization of existing bioenergy chains for economic and environmental sustainability' from. Funding: Ministry of Agriculture, Food and Forestry Policies (MiPAAF), Italy (D.M. 16916/7303/10, 23 July 2010).
- 04/2012 to 01/2013 Participation in the activities of the research project BIODATI founded by MiPAAF (D.M. 15421 4/07/2011).
- 06/2013 to 12/2015 Participation in the activities of the EU H2020 project ICOS-INWIRE, ICOS improved sensors, network and interoperability for GMES, FP7 / 2007-2013, Grant Agreement 313169 (<https://cordis.europa.eu/project/id/313169>).

- 06/2017 to 05/2019 Participation in the activities of the EU H2020 project ENVRIPLUS, Environmental Research Infrastructures Providing Shared Solutions for Science and Society, Grant Agreement 654182 (<https://cordis.europa.eu/project/id/654182>).
- 01/2017 to 12/2020 Participation in the activities of the EU H2020 project RINGO, Readiness of ICOS for Necessities of integrated Global Observations, Grant Agreement 730944 (<https://cordis.europa.eu/project/id/730944/it>).
- 01/2019 to 08/2022 Participation in the activities of the EU H2020 project ENVRI-FAIR, ENVironmental Research Infrastructures building Fair services Accessible for society, Innovation and Research, Grant Agreement 824068 (<https://cordis.europa.eu/project/id/824068/it>).
- 04/2023 to 03/2025 Participation in the activities of the FRED 2 (Fraud Repression through EDucation 2, 101101784-2022-IT-FRED2), an initiative led by Sapienza University of Rome, specifically its Impresapiens Research Centre, in collaboration with Italy's Guardia di Finanza and other European institutions. It is co-financed by the European Anti-Fraud Office (OLAF) under the EU Anti-Fraud Programme.
- 04/2025 to date Participation in the activities of the S4ADOWS: Statistics 4 Advanced mOdeling of undeclared Work and Shadow economy. 2025 Progetti Medi, Sapienza University of Rome.

COLLABORATION IN INTERNATIONAL RESEARCH GROUPS

- Participation in the research activities of the Ecosystem Thematic Center of the Integrated Carbon Observation System - Research Infrastructure (ICOS-RI, <http://www.icos-etc.eu/icos/>).
- Participation in the research activities of the FLUXNET network (<https://fluxnet.org>).

CONFERENCE ORGANIZATION

- Member of the Program Committee of the International Conference on Time Series and Forecasting (ITISE), Gran Canaria, Spain — editions 2021, 2022, 2023, 2024, and 2025.
- 12/2024 Organizer and chair of the invited session entitled Methods and models for environmental and ecological data I (session code CO282), 18th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics (CFE-CMStatistics 2024), 14-16 December 2024, King's College London, UK.
- 12/2024 Organizer and chair of the invited session entitled Methods and models for environmental and ecological data II (CO333), 18th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics (CFE-CMStatistics 2024), 14-16 December 2024, King's College London, UK.
- 12/2025 Organizer of the invited session entitled Statistical Models for Shadow Economy and Fraud Detection (A0390), 19th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics (CFE-CMStatistics 2025), 13-15 December 2025, Birkbeck, University of London, UK.

CONFERENCES

- 09/2009 SIS2009 Statistical Methods for the analysis of large data-sets, Pescara, Italy, 23-25 September 2009. Presented work: Unit Roots, Granger Causality and Global Warming: Bridging the Gap between Econometric Theory and Climatology.
- 09/2010 10th European Conference on Applications of Meteorology (ECAM), Zürich, Switzerland, 13-17 September, 2010. Presented work: Impact of climate change estimated through statistical downscaling on crop productivity and soil water balance in Southern Italy.
- 11/2016 2nd International Workshop on Interoperable infrastructures for interdisciplinary big data sciences (IT4RIs 16) in the context of IEEE Real-time System Symposium (RTSS). Porto, Portugal, 29 November - 2 December, 2016. Presented work: Near Real Time Data Processing In ICOS RI (<http://doi.org/10.5281/zenodo.204817>).
- 04/2017 European Geosciences Union (EGU) General Assembly. Vienna, Austria, 23-28 April 2017. Presented work: Towards an integrated quality control procedure for eddy-covariance data.
- 12/2018 American Geophysical Union (AGU) Fall Meeting. Washington, D.C., USA, 10-14 December 2018. Presented work: Cleaning Eddy-Covariance flux data: development and performance evaluation of new quality control tests.
- 12/2018 American Geophysical Union (AGU) Fall Meeting. Washington, D.C., USA, 10-14 December 2018. Presented work: Improving the Quality of Eddy Covariance Measurements from Data Collection to Data Processing.
- 12/2018 American Geophysical Union (AGU) Fall Meeting. Washington, D.C., USA, 10-14 December 2018. Presented work: Impact of CO₂ Storage Flux Sampling Uncertainty on Net Ecosystem Exchange Measured by Eddy Covariance.
- 12/2018 American Geophysical Union (AGU) Fall Meeting. Washington, D.C., USA, 10-14 December 2018. Presented work: Eddy Covariance flux errors due to synchronization errors during data acquisition.
- 04/2019 European Geosciences Union (EGU) General Assembly. Vienna, Austria, 7-12 April 2019. Presented work: Characterization of Eddy Covariance flux errors due to data synchronization issues during data acquisition.
- 12/2022 American Geophysical Union (AGU) Fall Meeting. Chicago, USA, 12-16 December 2022. The Presented work: Importance of Prewhitening in Time-Lag Detection between Raw, High-Frequency Eddy Covariance Data.
- 04/2023 European Geosciences Union (EGU) General Assembly. Vienna, Austria, 23-28 April 2023. Presented work: Time lag detection between raw eddy-covariance data by prewhitening and cross-correlation analysis.
- 04/2023 European Geosciences Union (EGU) General Assembly. Vienna, Austria, 23-28 April 2023. Presented work: From raw data to standardized, fully corrected, quality ensured eddy covariance flux data: the ICOS Ecosystem processing pipeline.
- 07/2023 GRASPA Conference, Palermo, Italy, 10-11 Jul 2023. Presented work: On time lag detection between time series sampled by eddy covariance systems.
- 08/2023 IES2023 Conference 30 August - 01 September 2023, Pescara, Italy, Statistical Methods for Evaluation and Quality: Techniques, Technologies, and Trends (T3). Presented work: Tackling misclassification in surveys about undeclared work via the EM algorithm.
- 06/2024 SIS2024 Conference of the Società Italiana di Statistica (SIS), Bari, Italy, 17-20 June 2024. Presented work: A two-part Beta regression model with measurement error.
- 09/2025 GRASPA2025 Conference, Rome, Italy, 15-17 September 2025. Presented work: Addressing Missing Data in Eddy-Covariance Time Series: A Comparative Study of Multiple Imputation Strategies
- 12/2025 CFE-CMStatistics Conference, London, UK, 13-15 December 2025. Accepted presentation: A Two-Part Income-Based Model for Estimating Underreported Income in the Presence of Consumption Measurement Error.

SUMMARY OF SCIENTIFIC ACHIEVEMENTS

Total citations: Google Scholar: 2143; Scopus: 1722; WoS Publons: 1598

Hirsch (H) index: Google Scholar 13; Scopus: 13; WoS Publons: 11

Scientific output assessed in accordance with ANVUR criteria specific to the role of Associate Professor for the 13-STAT/01 SDG (threshold values reported in brackets):

Criterio 1 - Riviste di Classe A: 10 papers in the last 10 years (5)

Criterio 2 - Riviste Scientifiche: 17 papers in the last 5 years (13)

Criterio 3 - Monografie: 0 (0)

PUBLICATIONS LIST

Arezzo MF, Guagnano G, Vitale D, Di Stefano R, Arcagni A (*accepted*) A Two-Part Income-Based Model for Estimating Underreported Income in the Presence of Consumption Measurement Error. 19th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics (CFE-CMStatistics 2025), 13–15 December 2025, Birkbeck, University of London, UK

Vitale D, Tancredi A (2025) Addressing Missing Data in Eddy-Covariance Time Series: A Comparative Study of Multiple Imputation Strategies. In Proceedings of the GRASPA 2025 Conference, Rome, 15–17 September 2025, Edited by: Francesco Lagona, Marco Mingione and Marta Cipriani, ISBN 979-12-243-0083-0

Rana G, Vitale D, Azzolini A, Mastrangelo M, Dyroff C, Di Tommasi P, Famulari D, Alberici A, Ferrara RM (2025) Applicability of a closed-path analyser for simultaneous eddy covariance measurement of carbon dioxide, water vapor, nitrous oxide, methane, ozone and ammonia fluxes in a horticultural crop, Science of the Total Environment 991, ISSN 0048-9697. <https://doi.org/10.1016/j.scitotenv.2025.179900>

Arezzo MF, Guagnano G, Vitale D (2025) A two-part beta regression with mismeasured dependent variable for modeling quasi-formal employment in Europe. AStA Adv Stat Anal (2025). <https://doi.org/10.1007/s10182-025-00524-7>

Arezzo, M.F., Guagnano, G., Vitale, D. (2025). A Two-Part Beta Regression Model with Measurement Error. In: Pollice, A., Mariani, P. (eds) Methodological and Applied Statistics and Demography III. SIS 2024. Italian Statistical Society Series on Advances in Statistics. Springer, Cham. https://doi.org/10.1007/978-3-031-64431-3_10. ISBN 978-3-031-64430-6

Nelson JA, Walther S, Gans F, Kraft B, Weber U, Novick K, Buchmann N, Migliavacca M, Wohlfahrt G, Šigut L, Ibrom A, Papale D, Göckede M, Duveiller G, Knohl A, Hörtnagl L, Scott RL, Zhang W, Hamdi ZM, Reichstein M, Aranda-Barranco S, Ardö, J, Op de Beeck M, Billesbach D, Bowling D, Bracho R, Brümmer C, Camps-Valls G, Chen S, Cleverly JR, Desai A, Dong G, El-Madany TS, Euskirchen ES, Feigenwinter I, Galvagno M, Gerosa GA, Gielen B, Goded I, Goslee S, Gough CM, Heinesch B, Ichii K, Jackowicz-Korczynski MA, Klosterhalfen A, Knox S, Kobayashi H, Kohonen K-M, Korkiakoski M, Mammarella I, Gharun M, Marzuoli R, Matamala R, Metzger S, Montagnani L, Nicolini G, O'Halloran T, Ourcival J-M, Peichl M, Pendall E, Ruiz Reverter B, Roland M, Sabbatini S, Sachs T, Schmidt M, Schwalm CR, Shekhar A, Silberstein R, Silveira ML, Spano D, Tagesson T, Tramontana G, Trotta C, Turco F, Vesala T, Vincke C, Vitale D, Vivoni ER, Wang Y, Woodgate W, Yezpe EA, Zhang J, Zona D, Jung M (2024) X-BASE: the first terrestrial carbon and water flux products from an extended data-driven scaling framework, FLUXCOM-X, Biogeosciences 21(22):5079–5115, 11 2024 DOI: <https://doi.org/10.5194/bg-21-5079-2024>

- Vitale D, Fratini G, Helfter C, Hortnagl L, Kohonen K-M, Mammarella I, Nemitz E, Nicolini G, Rebmann C, Sabbatini S, Papale D (2024) A pre-whitening with block-bootstrap cross-correlation procedure for temporal alignment of data sampled by eddy-covariance systems, *Environ Ecol Stat* 31, 219–244 (2024). <https://doi.org/10.1007/s10651-024-00615-9>
- Arezzo MF, Guagnano G, Vitale D (2024) Estimating the size of undeclared work from partially misclassified survey data via the EM algorithm, *Journal of the Royal Statistical Society, Series C (Applied Statistics)* Journal of the Royal Statistical Society Series C: Applied Statistics, Volume 73, Issue 3, June 2024, Pages 816–834, <https://doi.org/10.1093/jrsssc/qlae013>
- Nicolini G, Sabbatini S, Vitale D, Mammarella I, Papale D (2024) Toward a standardized processing of eddy covariance multi-gas flux measurements in urban environments, *ICOS SCIENCE CONFERENCE 2024 Book of Abstracts*, 10-12 Sept 2024, Versailles, France (Poster n 470), <https://www.icos-cp.eu/news-and-events/science-conference/icos2024sc/programme>
- Arezzo MF, Guagnano G, Vitale D (2023) Tackling misclassification in surveys about undeclared work via the EM algorithm. In *Proceedings of the IES2023 Conference*, 30 Aug – 01 Sep, Pescara, Italy. Eds: Bucci A, Cartone A, Evangelista A, Marletta A, ISBN 979-12-803-3369-8, pp 427-431, <https://doi.org/10.60984/978-88-94593-36-5-IES2023>
- Vitale D and Papale D (2023) On time lag detection between time series sampled by eddy covariance systems. In *Proceedings of the GRASPA 2023 Conference*, 10-11 July, Palermo, Italy, edited by Giada Adelfio and Antonino Abbruzzo, Università degli Studi di Palermo, ISBN 979-12-210-3389-2.
- Nicolini G, Sabbatini S, Canfora E, Polidori D, Ribeca A, Trotta C, Vitale D, Gielen B, Iserbyt A, Loubet B, Michilsens F, Op de Beeck M, Papale D (2023) From raw data to standardized, fully corrected, quality ensured eddy covariance flux data: the ICOS Ecosystem processing pipeline, *EGU General Assembly 2023*, Vienna, Austria, 24–28 Apr 2023, EGU23-16255, <https://doi.org/10.5194/egusphere-egu23-16255>
- Vitale D and Papale D (2023) Time lag detection between raw eddy-covariance data by prewhitening and cross-correlation analysis, *EGU General Assembly 2023*, Vienna, Austria, 24–28 Apr 2023, EGU23-12598, <https://doi.org/10.5194/egusphere-egu23-12598>
- Bilancia M, Vitale D, Manca F, Perchinunno P, Santacroce L (2023) A dynamic causal modeling of the second outbreak of COVID-19 in Italy. *AStA Adv Stat Anal* (2023), <https://doi.org/10.1007/s10182-023-00469-9>
- Papale D, Vitale D (2022) The Importance of Prewhitening in Time-Lag Detection between Raw, High-Frequency, Eddy-Covariance Data. In *AGU Fall Meeting 2022*. <https://agu.confex.com/agu/fm22/meetingapp.cgi/Paper/1142018>
- Irvin J, Zhou S, McNicol G, Lu F, Liu V, Fluet-Chouinard E, Ouyang Z, Knox SH, Lucas-Moffat A, Trotta C, Papale D, Vitale D, Mammarella I, Alekseychik P, Aurela M, Avati A, Baldocchi D, Bansal S, Bohrer G, Campbell DI, Chen J, Chu H, Dalmagro HJ, Delwiche KB, Desai AR, Euskirchen E, Feron S, Goeckede M, Heimann M, Helbig M, Helfter C, Hemes KS, Hirano T, Iwata H, Jurasinski G, Kalhori A, Kondrich A, Lai DYF, Lohila A, Malhotra A, Merbold L, Mitra B, Ng A, Nilsson MB, Noormets A, Peichl M, Rey-Sanchez AC, Richardson AD, Runkle BRK, Schäfer KVR, Sonnentag O, Stuart-Haëntjens E, Sturtevant C, Ueyama M, Valach AC, Vargas R, Vourlitis GL, Ward EJ, Xhuan Wong G, Zona D, Alberto MCR, Billesbach DP, Celis G, Dolman H, Friborg T, Fuchs K, Gogo S, Gondwe MJ, Goodrich JP, Gottschalk P, Hörtnagl L, Jacotot A, Koebsch F, Kasak K, Maier R, Morin TH, Nemitz E, Oechel WC, Oikawa PY, Ono K, Sachs T, Sakabe A, Schuur EA, Shortt R, Sullivan RC, Szutu DJ, Tuittila ES, Varlagin A, Verfaillie JG, Wille C, Windham-Myers L, Poulter B, Jackson RB (2021) Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands, *Agricultural and Forest Meteorology*, 308-309, 108528, <https://doi.org/10.1016/j.agrformet.2021.108528>
- Vitale D (2021) A performance evaluation of despiking algorithms for eddy-covariance data. *Scientific Reports*, 11, 11628, DOI: <https://doi.org/10.1038/s41598-021-91002-y>

- Leone N, Ancona V, Fragnito D, Vitale D, Bilancia M (2020) Geostatistical analysis of soil reflectance spectra for field-scale digital soil mapping. A case study. In: Metodi e analisi statistiche, Toma E, D'Ovidio F (a cura di) Dipartimento di Economia e Finanza, Università degli Studi di Bari Aldo Moro, pp. 95-118. ISBN 978-88-6629-023-0
- Fragnito D, Leone N, Ancona V, Vitale D, Lucadamo A (2020) Comparison of different multivariate calibrations and ensemble methods for estimating selected soil properties with vis-NIR reflectance spectroscopy. In: Metodi e analisi statistiche, Toma E, D'Ovidio F (a cura di), Dipartimento di Economia e Finanza, Università degli Studi di Bari Aldo Moro, pp. 135-162, ISBN 978-88-6629-023-0
- Pastorello G, et al. (more than 200 co-authors, 2020) The FLUXNET2015 Dataset and the ONEFlux Processing Pipeline for Eddy Covariance Data, *Scientific Data*, 7:225, <https://doi.org/10.1038/s41597-020-0534-3>
- Candela L, Stocker M, Haggstrom I, Enell C-F, Vitale D, Papale D, Grenier B, Chen Y, Obst M (2020) Case study: ENVRI science demonstrators with D4Science in Towards Interoperable Research Infrastructures for Environmental and Earth Sciences, Zhao Z, Hellstrom M (Eds), Springer International Publishing, ISBN 978-3-030-52829-4, <https://doi.org/10.1007/978-3-030-52829-4>
- Vitale D, Fratini G, Bilancia M, Nicolini G, Sabbatini S, Papale D (2020) A robust data cleaning procedure for eddy covariance flux measurements, *Biogeosciences*, 17: 1367-1391, <https://doi.org/10.5194/bg-17-1367-2020>.
- Perchinunno P, Bilancia M, Vitale D (2019) A Statistical Analysis of Factors Affecting Higher Education Dropouts, *Social Indicators Research*, <https://doi.org/10.1007/s11205-019-02249-y>.
- Bilancia M, Perchinunno P, Vitale D (2019) A Monte Carlo Study on Learning Algorithms for Predicting Student Dropouts in Higher Education, in *Annali del Dipartimento Jonico in Sistemi Giuridici ed Economici del Mediterraneo: società, ambiente, culture*. Università degli Studi di Bari Aldo Moro. ISBN 9788894281088.
- Ariza-Carricondo C, Di Mauro F, Op de Beeck M, Roland M, Gielen B, Vitale D, Ceulemans R, Papale D (2019) A comparison of different methods for assessing leaf area index in four canopy types, *Central European Forestry Journal*, 65: 67-80, <https://doi.org/10.2478/forj-2019-0011>.
- Fratini G, Sabbatini S, Ediger K, Riensche B, Burba G, Nicolini G, Vitale D, Papale D (2019) Characterization of Eddy Covariance flux errors due to data synchronization issues during data acquisition. In: EGU - Geophysical Research Abstracts, <https://ui.adsabs.harvard.edu/abs/2019EGUGA..21.5444F/abstract>.
- Vitale D, Bilancia M, Papale D (2019) Modelling Random Uncertainty of Eddy Covariance Flux Measurements, *Stochastic Environmental Research and Risk Assessment*, 33(3): 725-746, <https://doi.org/10.1007/s00477-019-01664-4>.
- Vitale D, Bilancia M, Papale D (2018) A Multiple Imputation Strategy for Eddy Covariance Data, *Journal of Environmental Informatics*, <https://doi.org/10.3808/jei.201800391>.
- Franz, D, Acosta, M, Altimir, N, Arriga N, Arrouays D, Aubinet M, ..., Vitale D, ..., Vesala T (2018) Towards long-term standardised carbon and greenhouse gas observations for monitoring Europe's terrestrial ecosystems: a review. *International Agrophysics*, 32(4), 439-455, <https://doi.org/10.1515/intag-2017-0039>.
- Sabbatini S, Mammarella I, Arriga N, Fratini G, Graf A, Hörtnagl L, Ibrom A, Longdoz B, Mauder M, Merbold L, Metzger S, Montagnani L, Pitacco A, Rebmann C, Sedlak P, Sigut L, Vitale D, Papale D (2018). Eddy covariance raw data processing for CO₂ and energy fluxes calculation at ICOS ecosystem stations. *International Agrophysics*, 32(4), 495-515, <https://doi.org/10.1515/intag-2017-0043>.
- Fratini G, Sabbatini S, Ediger K, Riensche B, Burba G, Nicolini G, Vitale D, Papale D (2018). Eddy covariance flux errors due to random and systematic timing errors during data acquisition. *Biogeosciences*, 15(17), 5473-5487, <https://doi.org/10.5194/bg-15-5473-2018>

- Vitale D, Fratini G, Nicolini G, Sabbatini S, Papale D (2018) Cleaning Eddy-Covariance flux data: development and performance evaluation of new quality control tests. In AGU Fall Meeting 2018, <http://adsabs.harvard.edu/abs/2018AGUFM.B33I2784V>.
- Fratini G, Sabbatini S, Ediger K, Riensche B, Burba G, Nicolini G, Vitale D, Papale D (2018) Eddy Covariance flux errors due to synchronization errors during data acquisition. In AGU Fall Meeting 2018, <https://ui.adsabs.harvard.edu/abs/2018AGUFM.B33I2786F/abstract>.
- Nicolini G, Fratini G, Mariotti A, Sabbatini S, Vitale D, Papale D (2018) Impact of CO₂ Storage Flux Sampling Uncertainty on Net Ecosystem Exchange Measured by Eddy Covariance. In AGU Fall Meeting 2018, <http://adsabs.harvard.edu/abs/2018AGUFM.B33I2783N>.
- Sabbatini S, Fratini G, Nicolini G, Vitale D, Papale D (2018) Improving the Quality of Eddy Covariance Measurements from Data Collection to Data Processing. In AGU Fall Meeting 2018, <http://adsabs.harvard.edu/abs/2018AGUFM.B22C..07S>.
- Vitale D, Papale D (2017) Towards an integrated quality control procedure for eddy-covariance data. In: EGU - Geophysical Research Abstracts Vol 19. ISSN:1607-7962, Wien, 23-28 April 2017, <https://ui.adsabs.harvard.edu/abs/2017EGUGA..1916089V/abstract>.
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Domenico Vitale