

Curriculum Vitae

Marcello Petitta

Rome, Italy
28nd July 2023

Part I – General Information

Full Name	Marcello Petitta
Date of Birth	03/05/1975
Place of Birth	Rome, Italy
Citizenship	Italian

Part II – Education

Type	Year	Institution	Notes (Degree, Experience)
University graduation	2000 June	Physics, Università “La Sapienza” di Roma	Mark: 110/110 Thesis topic: Meteorological variable measurements from space: a space mission prototype. Thesis supervisor: Prof. A. Sutera
PhD	2004 April	Università “La Sapienza” di Roma, Scuola di Ingegneria Aerospaziale PhD in “Ingegneria aerospaziale”	Thesis Title "Atmospheric application of the GPS Radio Occultation". Thesis supervisor: Prof. C. Ulivieri External Thesis Referee: A. Sutera

Part III – Appointments

IIIA – Research Appointments

Start	End	Institution	Position
Feb 2022	Present	Department of Enterprise Engineering University of Rome, Tor Vergataa	Ricercatore a tempo determinato (RTDA) Addressed topics and roles: - Scientific responsible for the national research project RESILIO, on environmental and air quality mapping in Sicily - Recipient for the national research project DM 1062/2021. - Scientific team of the Horizon Europe Projects on Agri-voltaics, REGACE - Tutoring, master students, PhD Students and Post-Doc
Nov 2013	Present	Amigo s.r.l.	Scientific Director and Founding Partner. Addressed topics: PI of 7 European Projects Project manager Communication of scientific results Artificial Intelligence and Machine learning

			<p>Extreme events Climate services User Engagement Risk analysis Tutoring Post-Doc, PhD and master students</p>
Dec 2012	Jan 2022	<p>ENEA (National Agency for new technologies, energy and sustainable economic development) Laboratory Climate Modelling and Impacts</p>	<p>Researcher Addressed topics and roles: - Responsible for two Funded European Projects on Climate Services 1. SECLI-FIRM: Climate services for Energy 2. ClimTour: Climate services for Tourism - Climate impact on renewable energy sources - Extreme event statistics - Artificial Intelligence and Machine learning methods for climate analysis and assessment - Climate services for the energy sector - Tutoring Post-Doc</p>
Nov 2013	Dec 2021	<p>EURAC, Earth Observation Institute</p>	<p>Senior Researcher. Addressed topics and roles: - Responsible for the climate group - Remote sensing of the atmosphere - Energy meteorology - Time series and extreme events statistics - Climate services for energy - Solar power and PV analysis - Aeronet station responsible - Air quality - Tutoring of Post-Docs, PhD and master students</p>
Oct 2008	Nov 2012	<p>EURAC, Earth Observation Institute</p>	<p>Head of the Air and Atmosphere Group at the European Academy Addressed topics: - Air quality - Remote sensing of the atmosphere - Energy meteorology - Atmospheric physics - Time series and extreme events statistics - Climatology - Solar power and PV analysis - Aeronet station responsible - Tutoring Post-Doc, PhD and master students</p>
Jul 2006	May 2008	<p>Physics Department, University of Rome "La Sapienza".</p>	<p>Post Doc position ("Assegno di ricerca") GPS Radio Occultation for climatological studies.</p>
Apr 2004	March 2006	<p>Physics Department, University of Rome "La Sapienza".</p>	<p>Post Doc position ("Assegno di ricerca") Large scale drought analysis in the Mediterranean Basin.</p>
<u>Nov 2000</u>	Dec 2003	<p>Aerospace Engineering School, University of Rome "La Sapienza".</p>	<p>PhD student of the Doctorate in Aerospace Engineering at the University of Rome "La Sapienza". Research activities carried out at the Aerospace Engineering Department and at the Physics</p>

			Department of the University of Rome 'La Sapienza' under the supervision of Prof. Carlo Olivieri and Prof. Alfonso Sutera on GPS radio occultation for remote sensing of the atmosphere.
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IIIB – Institutional Appointments

Start	End	Institution	Position
Mar 2016	Present	EUSALP (EU Strategy for the Alpine region)	EUSALP strategy Expert - Expert for EUSALP, Alpine Macroregional Strategy for climate adaptation, risk management and for Connectivity and Digital Agenda
Mar 2012	Present	Italian presidency of the Alpine Convention	Scientific Expert Scientific Expert for Climate Change Adaptation Policies, Energy and Digital Divide for the Italian presidency of the Alpine Convention
Jan 2013	Present	Climate Change Alpine Observatory	Researcher Italian Delegate for the Climate Change Alpine Observatory Consortium with Germany, Austria, Slovenia and Switzerland

Part IV – Teaching experience

Year	Institution	Lecture/Course
aa 2022/2023 and 2023/2024	Department of Enterprise Engineering University of Rome, Tor Vergata	Technical Physics for Students of Civil Engineering and Architecture
aa 2010/2011	Faculty of Science and Technology of the University of Bozen/Bolzano	Professor (Professore a contratto) General Physics C.L. Agricultural Science
aa 2009/2010	Vrije Universiteit Brussel	Guest Lecturer Climatology and Climate Change C.L.: Human Ecology, Department of Human Ecology
aa 2007/2008	Università di Roma "Sapienza"	Teaching assistant General Physics Climatology and Atmospheric physics C.L. Earth Science and Physics (Prof. A. Sutera)
2006 and 2007	Hydrological offices, Makalle Ethiopia	Lecturer Remote Sensing and Earth Observation. For the Ministry of the foreign affairs, Italian Cooperation in Ethiopia.
2007	Università di Roma "Sapienza"	Scholar in Physics ("Cultore della Materia") Physics Department,
aa 2006/2007	Università di Roma "Sapienza"	Teaching assistant General Physics C.L. Mathematics (Prof. Bonincontro)

aa 2004/2005	Università di Roma “Sapienza”	Teaching assistant Climatology and Atmospheric physics C.L. Physics (Prof. A. Sutera)
aa 2002/2003	Università di Roma “Sapienza”	Teaching assistant General Physics C.L. Geology (Prof. A. Sutera)
aa 2004/2005	Università di Roma “Sapienza”	Teaching assistant General Physics C.L. Earth Science (Prof. Dore)

Part V – Society memberships,

- Member of the VAO (Virtual Alpine Observatory)
- Member of the editorial board of the Bulletin of Atmospheric Science and Technology
- Reviewer for European Projects in different programmes.
- Reviewer of projects for scientific national academies of Switzerland and UK
- EGU (European Geophysical Union) member.
- SISC Società Italiana per le scienze del Climatologia
- AISAM Associazione Italiana di Scienze dell’Atmosfera e Climatologia

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Marcello Petitta has secured funds as PI of Research Project evaluated on competitive for 2.888.000€. Moreover, he has participated as unit PI in several Research Collaborative project for 1.963.000€

Year	Title	Program	Grant Value
2023	AEROPLANE: Advancing measures to Reduce aviation impact on climate and enhance resilience to climate-change <i>Role: Partner Principal Investigator</i>	Horizon Europe	200k€
2023	PIISA: Piloting Innovative Insurance Solutions For Adaptation <i>Role: Partner Principal Investigator</i>	Horizon Europe	302k€
2023	PENGUIN: AI-Powered renewable energy sources forecast <i>Role: Principal Investigator</i>	Horizon Europe	84k€
2023	ARIA: enhanced short-term wind forecasts <i>Role: Principal Investigator</i>	Horizon Europe	100k€
2022/2023	REGACE: Crop Responsive Greenhouse Agrivoltaics System with CO2 Enrichment for Higher Yields <i>Role: Scientist</i>	Horizon Europe	800k€
2022/2023	RESILIO: Tecnologie digitali fondamentali, Intelligenza Artificiale, Internet delle Cose e Quantum Machine Learning per la Resilienza Ambientale	PNRR	300k€

	<i>Role: Scientist</i>		
2020/2023	Focus Africa Climate Service in Southern Africa <i>Role: Unit Principal Investigator</i>	H2020	438k€
2021	TERRA Climate Services for Resilient Agriculture <i>Role: Principal Investigator</i>	ESA	84k€
2020/2023	ClimOP Climate assessment of innovative Mitigation strategies towards Operational improvements in aviation <i>Role: Unit Principal Investigator</i>	H2020	257k€
2019/2023	TIPES Tipping Points in the Earth System <i>Role: Unit Principal Investigator</i>	H2020	76k€
2019/2023	DESIRA Digitisation: Economic and Social Impact in Rural Areas <i>Role: Unit Principal Investigator</i>	H2020	136k€
2018/2020	APOLLON Environment Pollution Analyzer <i>Role: Unit Principal Investigator</i>	Innonetwork – Apulia Regional Administration	50k€
2017/2018	CaseXtreme Statistical Significance of Changes in the Statistics Extreme <i>Role: Principal Investigator</i>	H2020	120k€
2015/2018	XCF Extreme Climate Facility <i>Role: Principal Investigator</i>	World Food Programme	250k\$
2018/2021	SECLI-FIRM - The added value of seasonal climate forecasting for integrated risk management <i>Role: Unit Principal Investigator</i>	H2020	264k€
2018/2019	CLimTour: climate services for tourism <i>Role: Unit Principal Investigator</i>	Copernicus Climate Change Project C3S	40k€
2012/2015	Solar Tyrol: Potenziale fotovoltaico in Tirol <i>Role: Principal Investigator</i>	Interreg Italia Austria	250k€
2012/2014	PV-Alps: Photovoltaic Potential in alpine regions <i>Role: Unit Principal Investigator</i>	Interreg	200k€
2008/2012	Air Quality South Tyrol <i>Role: Principal Investigator</i>	Alto Adige region	2,000k€

Part VII – Research Activities

Keywords	Brief Description
<i>Climate services for energy production</i>	<p>During his scientific career, Marcello Petitta (M.P.) has applied knowledge of atmospheric physics in various fields related to air quality assessment, remote sensing of the atmosphere and statistics of extreme events, climate services and energy production estimation. To tackle his scientific goals, he has used his background in theoretical physics and data analysis, integrating various methods from different scientific fields.</p> <p><u>- Climate services for energy, agriculture, and risk management (2012-2023)</u></p> <p>M.P. started working on climate services in 2012 and is still responsible for several European projects on this topic. M.P. has been responsible for designing, planning and setting up climate services for the energy, agriculture, water and tourism sectors. To achieve these scientific goals, M.P. has worked to efficiently translate theoretical results and raw data from climate models to enable the flow of information from science to end users in terms of co-design and co-development of services. During these years, M.P. has been involved in both commercial and research initiatives to tackle climate services in energy management and risk assessment.</p> <p>In 2018, his H2020 research project SECLI-FIRM (The added value of seasonal climate forecasting for integrated risk management) was funded by the EU. In a very large consortium, he led the ENEA group in developing climate services for the energy sector that use seasonal forecasts for energy assessment. In addition, from 2019, he is the scientific responsible of four H2020 projects on climate services (Focus Africa, Desira, ClimOp, TiPEs) for Amigo, a consultancy working in the field of climate services for industry.</p> <p><u>- Solar radiation monitoring and Photovoltaic (PV) energy production (2008-2023)</u></p> <p>M.P. has long worked on monitoring and predicting solar radiation for energy use, especially for photovoltaic production. In his role as head of the Atmospheric Remote Sensing Group at EURAC, M.P. has worked on the integration of in-situ and remote sensing data for accurate solar radiation assessment. The approaches developed have been used for aerosol measurement and photovoltaic production estimation. He has subsequently extended his studies to other variables. For example, his studies have shed light on the following:</p> <ul style="list-style-type: none"> - The role of wind in PV production. - The role of aerosols in solar radiation scattering and its impact on PV production. - The distribution of air quality in orographically complex areas - The estimation of solar radiation and PV production at roof level. - The use of satellite data in cloud detection and PV prediction. - The use of the machine learning approach for PV production prediction.
<i>Climate Impact assessment</i>	
<i>Air Quality</i>	
<i>Solar radiation estimation</i>	
<i>PV production estimation</i>	
<i>Remote sensing of the atmosphere</i>	
<i>Extreme events statistics</i>	
<i>Atmospheric physics</i>	
<i>Artificial Intelligence and Machine Learning methods for atmospheric data analysis</i>	
<i>Drought monitoring and forecasting</i>	

- Air Quality and Remote sensing of the atmosphere (2000-2023)

Part of M.P.'s work aims to use remote sensing data to monitor the atmosphere to measure solar radiation, aerosol, temperature and humidity. To this end, he has developed specific algorithms for using GPS radio occultation to assess climate change and estimate precipitation. With his group at EURAC, he developed innovative methods to integrate in situ, model and satellite data to improve the estimation of incoming solar radiation, aerosol concentration and local pollution. In 2020, M.P. and his group developed an AI method for downscaling solar irradiance and pollution data at the local scale (500 m horizontal resolution) in the Apollon project funded by the Apulia Region.

- Extreme events assessment for drought and other climate events (2004-2023)

M.P. and his collaborators have used novel methods for assessing extreme events in climate risk management to estimate the increase in frequency and magnitude of extreme events under climate change conditions. His work has, for example:

- Linked large-scale atmospheric patterns to the generation of local extreme events.
- Developed and applied methods to distinguish extreme events caused by climate change or external forcing.
- Development of machine learning methods (Long-short-term memory convolutional methods) to identify extreme events.

Part VIII – Summary of Scientific Achievements

Part VIIIa – Publications

Scopus

Total number of products	32
Total Citations	913
h-index	14

Google Scholar

Total number of products	55
Total Citations	1436
h-index	17

List of complete Peer Reviewed publications

- [1] Trentini, L., Gesso, S. D., Venturini, M., Guerrini, F., Calmanti, S., & Petitta, M. (2022). A Novel Bias Correction Method for Extreme Events. *Climate* 2023, Vol. 11, Page 3, 11(1), 3. <https://doi.org/10.3390/CLI11010003>
- [2] C. M. Goodess et al., “The Value-Add of Tailored Seasonal Forecast Information for Industry Decision Making,” *Climate* 2022, Vol. 10, Page 152, vol. 10, no. 10, p. 152, Oct. 2022, doi: 10.3390/CLI10100152.
- [3] M. Pierro et al., “Impact of PV/Wind Forecast Accuracy and National Transmission Grid Reinforcement on the Italian Electric System,” *Energies* 2022, Vol. 15, Page 9086, vol. 15, no. 23, p. 9086, Nov. 2022, doi: 10.3390/EN15239086.

- [4] A. Crespi, M. Petitta, P. Marson, C. Viel, and L. Grigis, “Verification and bias adjustment of ecmwf seas5 seasonal forecasts over europe for climate service applications,” *Climate*, vol. 9, no. 12, p. 181, Dec. 2021, doi: 10.3390/CLI9120181/S1.
- [5] A. Crespi, M. Matiu, G. Bertoldi, M. Petitta, and M. Zebisch, “A high-resolution gridded dataset of daily temperature and precipitation records (1980–2018) for Trentino-South Tyrol (north-eastern Italian Alps),” *Earth Syst Sci Data*, vol. 13, no. 6, pp. 2801–2818, Jun. 2021, doi: 10.5194/essd-13-2801-2021.
- [6] M. Matiu et al., “Observed snow depth trends in the European Alps: 1971 to 2019,” *Cryosphere*, vol. 15, no. 3, pp. 1343–1382, 2021, doi: 10.5194/tc-15-1343-2021.
- [7] E. Arnone, M. Cucchi, S. Dal Gesso, M. Petitta, and S. Calmanti, “Droughts prediction: a methodology based on climate seasonal forecasts,” *Water Resources Management*, vol. 34, pp. 4313–4328, 2020, doi: <https://doi.org/10.1007/s11269-020-02623-3>.
- [8] E. Arnone et al., “The Drought-Alert Decision Support System for water resources management,” *Desalination and Water Treatment*, Submitted, vol. 194, no. June 2019, pp. 304–314, 2020, doi: 10.5004/dwt.2020.26033.
- [9] F. Antonioli et al., “Relative sea-level rise and potential submersion risk for 2100 on 16 coastal plains of the mediterranean sea,” *Water (Switzerland)*, vol. 12, no. 8, pp. 1–27, 2020, doi: 10.3390/w12082173.
- [10] M. Matiu, M. Petitta, C. Notarnicola, and M. Zebisch, “Evaluating Snow in EURO-CORDEX Regional Climate Models with Observations for the European Alps: Biases and Their Relationship to Orography, Temperature, and Precipitation Mismatches,” *Atmosphere (Basel)*, vol. 11, no. 1, p. 46, 2019, doi: 10.3390/atmos11010046.
- [11] A. Fekete et al., “Critical Data Source; Tool or Even Infrastructure? Challenges of Geographic Information Systems and Remote Sensing for Disaster Risk Governance,” *ISPRS International Journal of Geo-Information*, vol. 4, no. 4. Multidisciplinary Digital Publishing Institute, pp. 1848–1869, Sep. 24, 2015. doi: 10.3390/ijgi4041848.
- [12] M. Mulas, M. Petitta, A. Corsini, S. Schneiderbauer, F. V. Mair, and C. Iasio, “Long-term monitoring of a deep-seated, slow-moving landslide by mean of C-Band and X-Band advanced interferometric products: The Corvara in Badia case study (Dolomites, Italy).,” in *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives*, 2015, vol. 40, no. 7W3. doi: 10.5194/isprsarchives-XL-7-W3-827-2015.
- [13] M. Callegari et al., “Seasonal River Discharge Forecasting Using Support Vector Regression: A Case Study in the Italian Alps,” *Water (Basel)*, vol. 7, no. 5, pp. 2494–2515, May 2015, doi: 10.3390/w7052494.
- [14] M. De Felice, M. Petitta, and P. M. Ruti, “Short-term predictability of photovoltaic production over Italy,” *Renew Energy*, vol. 80, pp. 197–204, Aug. 2015, doi: 10.1016/j.renene.2015.02.010.
- [15] S. Hasson, V. Lucarini, M. R. Khan, M. Petitta, T. Bolch, and G. Gioli, “Early 21st century snow cover state over the western river basins of the Indus River system,” *Hydrol Earth Syst Sci*, vol. 18, no. 10, pp. 4077–4100, Oct. 2014, doi: 10.5194/hess-18-4077-2014.
- [16] M. Castelli et al., “The HelioMont method for assessing solar irradiance over complex terrain: Validation and improvements,” *Remote Sens Environ*, vol. 152, pp. 603–613, Sep. 2014, doi: 10.1016/j.rse.2014.07.018.
- [17] L. Ferrero et al., “Impact of black carbon aerosol over Italian basin valleys: high-resolution measurements along vertical profiles, radiative forcing and heating rate,” *Atmos Chem Phys*, vol. 14, no. 18, pp. 9641–9664, Sep. 2014, doi: 10.5194/acp-14-9641-2014.
- [18] C. Schwingshackl et al., “Wind Effect on PV Module Temperature: Analysis of Different Techniques for an Accurate Estimation,” *Energy Procedia*, vol. 40, pp. 77–86, 2013, doi: 10.1016/j.egypro.2013.08.010.
- [19] E. Emili et al., “High spatial resolution aerosol retrieval with MAIAC: Application to mountain regions,” *Journal of Geophysical Research: Atmospheres*, vol. 116, no. 23, pp. 1–12, 2011, doi: 10.1029/2011JD016297.
- [20] E. Emili, C. Popp, S. Wunderle, M. Zebisch, and M. Petitta, “Mapping particulate matter in alpine regions with satellite and ground-based measurements: An exploratory study for data assimilation,” *Atmos Environ*, vol. 45, no. 26, pp. 4344–4353, 2011, doi: 10.1016/j.atmosenv.2011.05.051.
- [21] E. Emili, C. Popp, M. Petitta, M. Riffler, S. Wunderle, and M. Zebisch, “PM10 remote sensing from geostationary SEVIRI and polar-orbiting MODIS sensors over the complex terrain of the European Alpine region,” *Remote Sens Environ*, vol. 114, no. 11, pp. 2485–2499, 2010, doi: 10.1016/j.rse.2010.05.024.
- [22] I. Bordi, K. Fraedrich, M. Petitta, and A. Sutera, “Extreme value analysis of wet and dry periods in Sicily,” *Theor Appl Climatol*, vol. 87, no. 1–4, pp. 61–71, 2007, doi: 10.1007/s00704-005-0195-3.
- [23] I. Bordi, K. Fraedrich, M. Petitta, and A. Sutera, “Large-Scale Assessment of Drought Variability Based on NCEP/NCAR and ERA-40 Re-Analyses,” *Water Resources Management*, vol. 20, no. 6, pp. 899–915, 2006, doi: 10.1007/s11269-005-9013-z.

- [24] B. Bizzarri et al., “Analysis of Seasonal and Daily Mid-Latitude Tropopause Pressure Using GPS Radio Occultation Data and NCEP-NCAR Reanalyses,” in *Atmosphere and Climate SE - 21*, U. Foelsche, G. Kirchengast, and A. Steiner, Eds. Springer Berlin Heidelberg, 2006, pp. 253–263. doi: 10.1007/3-540-34121-8_21.
- [25] I. Bordi, K. Fraedrich, M. Petitta, and A. Sutera, “METHODS FOR PREDICTING DROUGHT OCCURRENCES,” in *Proceedings of EWRA (The European Water Resources Association) conference*, Menton, France, 2005.
- [26] I. Bordi, K. Fraedrich, M. Petitta, and A. Sutera, “EXTREME VALUE ANALYSIS OF THE SPI TIME SERIES,” in *Proceedings of EWRA Symposium on Water resources management: risks and challenges for the 21st century*, 2004, pp. 1–10.
- [27] I. Bordi, K. Fraedrich, M. Petitta, and A. Sutera, “Large-Scale Analysis of Drought in Europe Using Ncep/Ncar and Era-40 Re-Analysis Data Sets,” in *Proceedings of EWRA Symposium on Water resources management: risks and challenges for the 21st century*, 2004, pp. 35–42.
- [28] B. Bizzarri, I. Bordi, A. D. Aquila, M. Petitta, and A. Sutera, “GPS radio occultation sounding to support General Circulation,” *Nuovo Cimento C*, vol. 27, no. 1, pp. 59–71, 2004, doi: 10.1393/ncc/i2004-10007-1.
- [29] M. Petitta, “Applicazioni atmosferiche del radio occultamento del segnale GPS,” *Università di Roma La Sapienza*, 2004.
- [30] B. Bizzarri, K. Künzi, and M. Petitta, “Clouds-a cloud, aerosol, radiation and precipitation explorer,” *Acta Astronaut*, vol. 52, no. 9–12, pp. 739–746, May 2003, doi: 10.1016/S0094-5765(03)00045-6.
- [31] B. Bizzarri, I. Bordi, M. Petitta, and A. Sutera, “Sensitivity of cloud radiative forcing to changes of microphysical,” *Nuovo Cimento C*, vol. 25, no. 3, pp. 323–337, 2002.

Proceedings, Talks and conference contributions

Total number of contributions in conferences including talks and proceeding	101
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Here a selected list of the 20 most relevant oral presentations (2005-2020)

1. Bordi I., Fraedrich K., Petitta M., Sutera A., 2005: Methods for predicting Drought Occurrences. *Proceedings of EWRA (The European Water Resources Association) conference*, Menton, France.
2. Petitta M., L. Di Liberto, A. di Sarra, I. Bordi, D. Fuà, 2008: Comparison Of Lidar And Cosmic Radio Occultation Temperature Profiles At High Latitude. *Geophysical Review Letters*, GOLD2008 Conference Proceedings, CD
3. Petitta, M.; Emili, E.; Zebisch, M., 2009: Analisi degli eventi estremi della concentrazione di PM10: un nuovo approccio statistico. *Environment Including Global Change*, Palermo.
4. Petitta, M.; Popp, C.; Emili, E.; Steurer, C.; Zebisch, M.; Verdi, L., 2009: A scientific and operational project for monitoring AOD and PM in Alto Adige/South Tyrol: outlines, first results and perspectives. *European Geoscience Union*, Vienna.
5. Petitta, M.; Popp, C.; Emili, E.; Verdi, L.; Schneiderbauer, S.; Steurer, C.; Zebisch, M., 2009: A new approach for air quality monitoring using remote sensing and in-situ data in South Tyrol. *Air Quality Science and Application*, Istanbul.
6. L. Caporaso, F. Di Giuseppe, G. Bonafé, M. Deserti, M. Petitta, M. Castelli, G. Gobbi, F. Angelini, A. Riccio, 2010. The relevance of PBL height characterization for the satellite retrieval of PM10 concentration. *ISARS conference*, Paris, 2010
7. Petitta M., Emili E., Lyapustin A., Wang Y., 2011. Aerosol Optical Depth and PM10 trends over Europe in the last decade: Relationship between high resolution satellite data and ground-based measurements Oral presentation at the 10th European Conference on Applications of Meteorology, Berlin.
8. Petitta, Marcello; Castelli, Mariapina; Calmanti, Sandro; Climate services for energy production: are regional climate models reliable for future solar power generation scenarios?, *EGU General Assembly Conference Abstracts*, EGU2013-9026, 2013
9. Petitta, M.; Wind effect on PV module temperature: Analysis of different techniques for an accurate estimation, 2013 General Assembly of European Geosciences Union, EGU 2013, 40, 2013,
10. Petitta, Marcello; Wagner, Jochen; Costa, Armin; Monsorno, Roberto; Innerebner, Markus; Moser, David; Zebisch, Marc; Solar Tyrol project: using climate data for energy production estimation. *The*

- good practice of Tyrol in conceptualising climate services.,EGU General Assembly Conference Abstracts,6740,2014,
11. Petitta, Marcello; Pregolato, Marco; Pedoth, Lydia; Schneiderbauer, Stefan; ,Relationship between landslide processes and land use-land cover changes in mountain regions: footprint identification approach.,EGU General Assembly Conference Abstracts,6927,2015,
 12. Petitta, Marcello; Calmanti, Sandro; Cucchi, Marco; ,The Extreme Climate Index: a novel and multi-hazard index for extreme weather events.,EGU General Assembly Conference Abstracts,EPSC2016-13861,2016,
 13. Petitta M., De Felice M.; Renewable energy production over Italy: from short-term to seasonal predictability. Bologna 1° Congresso AISAM, 2008
 14. A. dell'Aquila, S.Calmanti, F. Catalano, I. Cionni, M. Petitta, L. Ponti, Turning climate data into value for productive activities in the users perspective 8th SISC Annual conference,2019
 15. M. Palma, F. Catalano, I. Cionni, M. Petitta, Climate Services for the Energy Sector: current state and future development. 9th SISC Annual conference,2020
 16. M. Petitta, M. Callegari, F. Catalano, I. Cionni, A. Crespi, M. Palma, New perspectives on climate services for energy, 4th AISAM Conference, 2022
 17. Marcello Petitta , Laura Trentini, Sara Dal Gesso, Marco Venturini, Federica Guerrini, Sandro Calmanti, An Innovative Bias Correction Method for Extreme Events for Seasonal Energy Management, ICEM 2023
 18. Cristina Cornaroc, Andrea Volterrani, Marcello Petitta, Gianluigi Bovesecchi, Maria Cristina Antonucci, , Andrea Volterrani, ICEM 2023
 19. Bovesecchi, Petitta, Pierro, Moser, Di Carlo, Agresti, Pescetelli, Leonardi, Sohani, Cornaro, Energy transition of the Lazio Region: new PV technologies and future scenarios for the high penetration of PV power production (RES4LAZIO), Rete Italiana del Fotovoltaico Congresso Nazionale 2023
 20. Marcello Petitta, Gianluigi Bovesecchi, Ali Sohani, Marco Serra, Maria Cristina Antonucci, Domenica Iezzi, Andrea Volterrani, Cristina Cornaro.Agrivoltaic in greenhouses: technological and social impact of an innovative solution. Rete Italiana del Fotovoltaico Congresso Nazionale 2023