

## List of publications of Dr. Mario Montopoli

Peer reviewed international publications with the indication, when available, of the Impact Factor (IF: <http://www.scijournal.org/>) and the SCImago Journal Rank (SJR: <http://www.scimagojr.com/>) for each publication year.

### Year 2017

1. Montopoli M., Roberto N., Adirosi E., Gorgucci E. and Baldini L., (2017). "Investigation of Weather Radar Quantitative Precipitation Estimation Methodologies in Complex Orography", *Atmosphere*, 8(2), 34, doi:10.3390/atmos8020034; ISSN: 2073-4433. **IF=NAe, SJR= NA**
2. Biscarini M., Montopoli M., Marzano F. S., (2017). "Evaluation of High-Frequency Channels for Deep Space Data Transmission Using Radiometeorological Model Forecast", *IEEE Transactions on Antennas and Propagation*, vol.PP, no.99, pp.1-1, doi: 10.1109/TAP.2017.2653420; ISSN: 0018-926X. **IF= NA, SRJ= NA**

### Year 2016

3. Marzano F. S., (2016). "Near-Real-Time Detection of Tephra Eruption Onset and Mass Flow Rate Using Microwave Weather Radar and Infrasonic Arrays," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 54, no. 11, pp. 6292-6306, doi: 10.1109/TGRS.2016.2578282; ISSN: 0196-2892. **IF=3.36, SJR=1.975**
4. Falconi M.T., Montopoli M., Marzano, F.S., (2016). "Bayesian statistical analysis of ground-clutter for the relative calibration of dual polarization weather radars", *European Journal of Remote Sensing*, Volume 49, 13 December 2016, Pages 933-953; doi: 10.5721/EuJRS20164949; ISSN: 2279-7254. **IF=1.173, SJR=0.458**
5. Montopoli M., (2016), "Velocity profiles inside volcanic clouds from three-dimensional scanning microwave dual-polarization Doppler radars", *Journal of Geophysical Research: Atmospheres*, 121, 7881-7900, doi:10.1002/2015JD023464; ISSN:2169-8996. **IF=3.318, SRJ=2.310**
6. Corradini S., Montopoli M., Guerrieri L., Ricci M., Scollo S., Merucci L., Marzano F.S., Pugnaghi S., Prestifilippo M., Ventress L.J., Grainger R.G., Carboni E., Vulpiani G. and Coltelli M., (2016). "A Multi-Sensor Approach for Volcanic Ash Cloud Retrieval and Eruption Characterization: The 23 November 2013 Etna Lava Fountain", *Remote Sensing*, 8, 58, doi:10.3390/rs8010058; ISSN 2072-4292. **IF=3.036, SRJ=1.269**
7. Biscarini, M., Marzano F.S., Montopoli M., De Sanctis K., Iess L., Montagna M., Mercolino M., Lanucara M., (2016). "Optimizing Data Volume Return for Ka-Band Deep Space Links Exploiting Short-Term Radiometeorological Model Forecast", *IEEE Transactions on Antennas and Propagation*, vol.64, no.1, pp.235-250, doi: 10.1109/TAP.2015.2500910; ISSN: 0018-926X. **IF=2.053, SRJ=2.130**
8. Marzano F.S., Montopoli M., Cimini D. and Kylling A., (2016). "Spaceborne microwave and infrared radiometric observations during the sub-Plinian eruption of Calbuco volcano in 2015", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, 1 November, Pages 5753-5756,doi: 10.1109/IGARSS.2016.7730503; ISBN: 978-150903332-4. **IF=NA, SRJ=NA**

### Year 2015

9. Mereu, L., Marzano, F. S., Montopoli M., Bonadonna, C., (2015). "Retrieval of tephra size spectra and mass flow rate from C-band radar during the 2010 eyjafjallajökull eruption, Iceland", *IEEE Transactions on Geoscience and Remote Sensing*, 53(10), 5644-5660, doi:10.1109/TGRS.2015.2427032; ISSN: 0196-2892. **IF=3.36, SRJ=1.975**
10. Montopoli M., Vulpiani G. and Guerriero E.,(2015). "Vertical profiles of weather radar reflectivity: Case study analysis from the Italian network for quantitative precipitation estimation", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Milan, 26-31 July, 2015, Pages: 4894 - 4896, doi: 10.1109/IGARSS.2015.7326928; ISBN:978-147997929-5. **IF= NA, SRJ=NA**
11. Falconi M.T., Vulpiani G., Montopoli M., Marzano F.S., (2015). "C-band polarimetric weather radar calibration using a fuzzy logic fusion of three techniques", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Milan, 26-31 July, ,Pages: 5363 - 5366, doi: 10.1109/IGARSS.2015.7327047; ISBN:978-147997929-5. **IF= NA, SRJ=NA**
12. Mori S., Polverari F., Mereu L., Pulvirenti L., Montopoli M., Pierdicca N., Marzano F.S., (2015). "Atmospheric precipitation impact on synthetic aperture radar imagery: Numerical model at X and KA bands", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Milan, 26-31 July, 2015, Pages: 1582 - 1585, doi: 10.1109/IGARSS.2015.7326085; ISBN:978-147997929-5. **IF= NA, SRJ=NA**
13. Barbieri S., Picciotti E., Montopoli M., Di Fabio S., Lidori R., Marzano F.S., Kalogiros J.,

Anagnostou M. and Baldini L., (2015). "Performance evaluation of rain products from a polarimetric X-band radar by using a new raw data processing chain", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Milan, 26-31 July, Pages: 909 - 912, doi: [10.1109/IGARSS.2015.7325913](https://doi.org/10.1109/IGARSS.2015.7325913); ISBN:978-147997929-5. **IF= NA, SRJ=NA**

#### Year 2014

14. Marzano F. S., Mereu L., Montopoli M., Cimini D. and Martucci G., (2014). "Volcanic Ash Cloud Observation using Ground-based Ka-band Radar and Near-Infrared Lidar Ceilometer during the Eyjafjallajökull eruption", *Annals of Geophysics*, Fast Track 2, 2014; doi: [10.4401/ag-6634](https://doi.org/10.4401/ag-6634); ISSN: 2037-416X. **IF=0.679, SRJ= 0.728**
15. Ori D., Maestri T., Rizzi R., Cimini D., Montopoli M. and Marzano F. S., (2014). "Scattering properties of modeled complex snowflakes and mixed-phase particles at microwave and millimeter frequencies", *Journal of Geophysical Research: Atmospheres*, 119, 9931-9947, doi:[10.1002/2014JD021616](https://doi.org/10.1002/2014JD021616); ISSN:2169-8996. **IF=3.426, SRJ=2.374**
16. Maiello I., Ferretti R., Gentile S., Montopoli M., Picciotti E., Marzano F. S. and Faccani C., (2014). "Impact of radar data assimilation for the simulation of a heavy rainfall case in central Italy using WRF-3DVAR", *Atmospheric Measurement Techniques*, 7, 2919-2935, 2014, doi:[10.5194/amt-7-2919-2014](https://doi.org/10.5194/amt-7-2919-2014); ISSN: 1867-8548. **IF=2.929, SRJ=2.179**
17. Montopoli M., Vulpiani G., Cimini D., Picciotti E. and Marzano F.S., (2014). "Interpretation of observed microwave signatures from ground dual polarization radar and space multi-frequency radiometer for the 2011 Grímsvötn volcanic eruption". *Atmospheric Measurement Techniques*, 7 (2), pp. 537-552, doi: [10.5194/amt-7-537-2014](https://doi.org/10.5194/amt-7-537-2014); ISSN: 1867-8548. **IF=2.929, SRJ=2.179**
18. Kalogiros, J., Anagnostou M. N., Anagnostou E. N., Montopoli M., Picciotti E., and Marzano F. S., (2014): "Evaluation of a new polarimetric algorithm for rain path attenuation correction of X-band radar observations against disdrometer," , *IEEE Transactions on Geoscience and Remote Sensing*, 52, 2, 1369-1380, doi: [10.1109/TGRS.2013.2250979](https://doi.org/10.1109/TGRS.2013.2250979); ISSN: 0196-2892. **IF=3.514, SRJ=2.689**

#### Year 2013

19. Montopoli M., Cimini D., Lamantea M., Herzog M., Graf H.F., and Marzano F.S., (2013). "Microwave radiometric remote sensing of volcanic ash clouds from space: model and data analysis", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 51, (9), pp. 4678 - 4691, doi: [10.1109/TGRS.2013.2260343](https://doi.org/10.1109/TGRS.2013.2260343); ISSN: 0196-2892. **IF=2.933, SRJ=2.598**
20. Marzano F.S., Picciotti E., Montopoli M., Vulpiani G., (2013). "Inside Volcanic Clouds: Remote Sensing of Ash Plumes Using Microwave Weather Radars", *Bulletin of the American meteorological society*, doi: <http://dx.doi.org/10.1175/BAMS-D-11-00160.1>; eISSN: 1520-0477. **IF= 11.574, SRJ=6.481**
21. Picciotti E., Marzano F. S., Anagnostou E. N., Kalogiros J., Fessas Y. Volpi A., Cazac V., Pace R., Cinque G., Bernardini L., De Sanctis K., Di Fabio S., Montopoli M., Anagnostou M.N., Telleschi A., Dimitriou E., Stella J, (2013). "Coupling X-band dual-polarized mini-radars and hydro-meteorological forecast models: The HYDRORAD project". *Natural Hazards and Earth System Science*, 13(5), 1229-1241, doi:[10.5194/nhess-13-1229-2013](https://doi.org/10.5194/nhess-13-1229-2013); ISSN: 1561-8633. **IF=1.826, SRJ=0.944**
22. Marzano F. S., Lamantea M., Montopoli M., Herzog M., Graf H., and Cimini D., (2013). "Microwave remote sensing of the 2011 Plinian eruption of the Grímsvötn Icelandic volcano". *Remote Sensing of Environment*, 129, 168-184, doi: <http://dx.doi.org/10.1016/j.rse.2012.11.005>; ISSN: 0034-4257. **IF= 4.769, SRJ=3.336**
23. Bonafoni S., Mazzoni A., Cimini D., Montopoli M., Pierdicca N., Basili P. and Carlesimo G., (2013). "Assessment of water vapor retrievals from a GPS receiver network", *GPS Solutions*, vol. 17, (4), pp. 475-484, doi: [10.1007/s10291-012-0293-5](https://doi.org/10.1007/s10291-012-0293-5), 2013. ISSN: 1080-5370. **IF= 2.202, SRJ=1.705**
24. Kalogiros J., Anagnostou M. N., Anagnostou E. N., Montopoli M., Picciotti E. and F. S. Marzano, (2013). "Optimum estimation of rain microphysical parameters using X-band dual-polarization radar observables", *IEEE Transactions on Geoscience and Remote Sensing*, 51, 5, 3063- 3076, doi: [10.1109/TGRS.2012.2211606](https://doi.org/10.1109/TGRS.2012.2211606); ISSN: 0196-2892. **IF= 2.933, SRJ=1.810**
25. Kalogiros J., Anagnostou M. N., Anagnostou E. N., Montopoli M., Picciotti E. and F. S. Marzano, (2013). "Correction of polarimetric radar reflectivity measurements and rainfall estimates for apparent vertical profile in stratiform rain", *Journal of Applied Meteorology and Climatology*, 52, 5, 1170-1186, doi: [10.1175/JAMC-D-12-0140.1](https://doi.org/10.1175/JAMC-D-12-0140.1). eISSN: 1558-8432. **IF= 2.099, SRJ=1.991**
26. Anagnostou M.N., Kalogiros J., Marzano F. S., Anagnostou E. N., Montopoli M. and Picciotti E., (2013). "Performance evaluation of a new rain microphysics algorithm for dual-polarization X-band radars using long-term radar and disdrometer measurements," *Journal of Hydrometeorology*, 14, 560-576, doi: [10.1175/JHM-D-12-057.1](https://doi.org/10.1175/JHM-D-12-057.1). eISSN: 1525-7541. **IF= 3.573, SRJ=2.542**
27. Montopoli M.; Herzog M., Vulpiani G., Cimini D., Marzano F.S., Graf H., (2013), "Remote sensing

of volcanic ash: Synergistic use of ash models and microwave observations of the erupting plumes”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, vol., no., pp.711-714, 21-26 July 2013, Melbourne, VIC; Australia, doi: 10.1109/IGARSS.2013.6721256; ISBN: 978-147991114-1

#### Year 2012

28. Montopoli M., Pierdicca N. and Marzano, F. S., (2012). “Spectral Downscaling of Integrated Water Vapor Fields From Satellite Infrared Observations”. *IEEE Transactions on Geoscience and Remote Sensing*, 50(2), 415-428. doi:10.1109/TGRS.2011.2161996; ISSN: 0196-2892. **IF: 3.467, SRJ=2.473**
29. Montopoli M., Marzano F. S., Picciotti E., and Vulpiani G, (2012). “Spatially-adaptive advection radar technique for precipitation mosaic nowcasting”. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 5(3), 874-884, doi: 10.1109/JSTARS.2011.2182506; ISSN: 1939-1404. **IF: 2.874, SRJ=1.353**
30. Marzano F. S., Mori S., Weinman J. A. and Montopoli M., (2012). “Modeling Polarimetric Response of Spaceborne Synthetic Aperture Radar Due to Precipitating Clouds From X- to Ka-Band”. *IEEE Transactions on Geoscience and Remote Sensing*, 50(3), 687-703, doi:10.1109/TGRS.2011.2163942; ISSN: 0196-2892. **IF: 3.467, SRJ=2.473**
31. Vulpiani G., Montopoli M., Passeri L. D., Gioia A. G., Giordano P., and Marzano, F. S., (2012). “On the Use of Dual-Polarized C-Band Radar for Operational Rainfall Retrieval in Mountainous Areas”. *Journal of Applied Meteorology and Climatology*, 51(2), 405-425, doi:10.1175/JAMC-D-10-05024.1; eISSN: 1558-8432. **IF: 2.02, SRJ=1.891**
32. Cimini D., Pierdicca N., Pichelli E., Ferretti R., Mattioli V., Bonafoni S., Montopoli M. and Perissin D., (2012). “On the accuracy of integrated water vapor observations and the potential for mitigating electromagnetic path delay error in InSAR”. *Atmospheric Measurement Techniques*, 5(5), 1015-1030, doi:10.5194/amt-5-1015-2012; ISSN: 1867-8548. **IF: 3.205, SRJ=2.184**
33. Marzano F. S., Picciotti E., Vulpiani G., and Montopoli M., (2012). “Synthetic signatures of volcanic ash cloud particles from X-band dual-polarization radar”. *IEEE Transactions on Geoscience and Remote Sensing*, 50(1), 193-211, doi: 10.1109/TGRS.2011.2159225; ISSN: 0196-2892. **IF: 3.467, SRJ=2.473**
34. Marzano F. S., Lamantea M., Montopoli M., Oddsson B., and Gudmundsson M. T., (2012). “Validating subglacial volcanic eruption using ground-based C-band radar imagery”. *IEEE Transactions on Geoscience and Remote Sensing*, 50(4), 1266-1282, doi: 10.1109/TGRS.2011.2167017; ISSN: 0196-2892. **IF: 3.467, SRJ=2.473**
35. Marzano F.S., Lamantea M., Montopoli M., Cimini D., (2012), “Radar remote sensing of ash cloud due to the Grímsvötn sub-glacial explosive eruption on 2011”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, art. no. 6350800, pp. 2978-2981, doi: 10.1109/IGARSS.2012.6350800; ISBN 978-1-4673-1160-1. **IF: NA, SRJ=NA**
36. Mori S., Pulvirenti L., Chini M., Pierdicca N., Montopoli M., Parodi A., Weinman J.A., Marzano F.S. (2012), “Analysis of rainfall signatures on COSMO-SkyMed X-Band Synthetic Aperture Radar observations”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, art. no. 6351119, pp. 1952-1955, doi: 10.1109/IGARSS.2012.6351119; ISBN 978-1-4673-1160-1, **IF: NA, SRJ=NA**

#### Year 2011

37. Montopoli M., Di Carlofelice A., Cicchinelli M., Tognolatti P., Marzano F.S., (2011). “Lunar Microwave Brightness Temperature: Model Interpretation and Inversion of Spaceborne Multifrequency Observations by a Neural Network Approach”. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 49, p. 3350-3358, doi: 10.1109/TGRS.2011.2160351; ISSN: 0196-2892. **IF: 2.895, SRJ=2.407**
38. Montopoli M., Di Carlofelice A., Tognolatti P. and Marzano F. S., (2011). “Remote sensing of the Moon's subsurface with multifrequency microwave radiometers: A numerical study”. *Radio Science*, 46(1), doi:10.1029/2009RS004311. eISSN: 1944-799X. **IF: 1.075, SRJ=0.528**
39. Marzano F. S., Mori S., Chini M., Pulvirenti L., Pierdicca N., Montopoli M. and Weinman J. A., (2011). “Potential of high-resolution detection and retrieval of precipitation fields from X-band spaceborne synthetic aperture radar over land”. *Hydrology and Earth System Sciences*, 15(3), 859-875, doi:10.5194/hess-15-859-2011; eISSN 1607-793. **IF: 3.148, SRJ=1.524**
40. Marzano F. S., Lamantea M., Montopoli M., Di Fabio S. and Picciotti E., (2011). “The Eyjafjöll explosive volcanic eruption from a microwave weather radar perspective”. *Atmospheric Chemistry and Physics*, 11(18), 9503-9518, doi: 10.5194/acp-11-9503-2011; eISSN: 1680-7324. **IF: 5.52, SRJ=3.376**
41. Pierdicca, N., Rocca F., Basili P., Bonafoni S., Carlesimo G., Cimini D., Ciotti P., Ferretti R., Marzano F.S., Mattioli V., Montopoli M., Notarpietro R., Perissin D., Pichelli E., Rommen B., Venuti G., (2011). “Synergistic use of EO, NWP and ground based measurements for the mitigation of vapour

artefacts in SAR interferometry”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, , doi: 10.1109/IGARSS.2011.6049765, ISBN: 978-1-4577-1003-2. **IF: NA, SRJ=NA**

#### Year 2010

42. Marzano F. S., Cimini D. and Montopoli M., (2010). “Investigating precipitation microphysics using ground-based microwave remote sensors and disdrometer data”. *Atmospheric Research*, 97(4), 583-600. doi:10.1016/j.atmosres.2010.03.019; ISSN: 0169-8095. **IF: 1.597, SRJ= 0.973**
43. Marzano F. S., Botta G., Montopoli M., (2010). “Iterative Bayesian Retrieval of Hydrometeor Content from X-Band Polarimetric Weather Radar”. *IEEE Transactions on Geoscience and Remote Sensing*, 48(8), 3059-3074. doi:10.1109/TGRS.2010.2045231; ISSN: 0196-2892. **IF: 2.47, SRJ= 2.302**
44. Pichelli E., Ferretti R., Cimini D., Perissin D., Montopoli M., Marzano F. S. and Pierdicca N., (2010). “Water vapour distribution at urban scale using high-resolution numerical weather model and spaceborne SAR interferometric data”. *Natural Hazards and Earth System Science*, 10(1), 121-132, doi: doi:10.5194/nhess-10-121-2010. ISSN:1684-9981. **IF: 3.17, SRJ= 0.919**

#### Year 2009

45. Marzano F.S., Cimini D., Memmo A., Montopoli M., Rossi T., De Sanctis M., Lucente M., Mortari D., Di Michele S., (2009). “Flower Constellation of Millimeter-Wave Radiometers for Tropospheric Monitoring at Pseudogeostationary Scale”. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 47, p. 3107-3122, doi: 10.1109/TGRS.2008.2012349; ISSN: 0196-2892. **IF: 2.234, SRJ= 2.302**
46. Pierdicca N., Rocca F., Rommen B., Basili P., Bonafoni S., Cimini D., Ciotti P., Consalvi F., Ferretti R., Foster W., Marzano F.S., Mattioli V., Mazzoni A., Montopoli M., Notarpietro R., Padmanabhan S., Perissin D., Pichelli E., Reising S., Sahoo S., Venuti G., (2009), “Atmospheric water vapor effects on spaceborne interferometric SAR imaging: Comparison with ground-based measurements and meteorological model simulations at different scales”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, vol. 5, p. 320 - 323, doi: 10.1109/IGARSS.2009.5417668; ISBN: 978-1-4244-3395-7. . **IF: NA, SRJ= NA**

#### Year 2008

47. Montopoli M., Marzano F. S. and Vulpiani G., (2008). “Analysis and Synthesis of Raindrop Size Distribution Time Series from Disdrometer Data”. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 46, p. 466-478, doi:10.1109/TGRS.2007.909102; ISSN: 0196-2892. **IF: 3.157, SRJ=2.863**
48. Montopoli M., Marzano F.S., Vulpiani G., Anagnostou M.N., Anagnostou E.N., (2008). “Statistical Characterization and Modeling of Raindrop Spectra Time Series for Different Climatological Regions”. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 46, p. 2778-2787, doi:10.1109/TGRS.2008.2000652; ISSN: 0196-2892. **IF: 3.157, SRJ=2.863**
49. Anagnostou M.N., Anagnostou E.N., Vulpiani G., Montopoli M., Marzano F.S., Vivekanandan J., (2008). “Evaluation of X-Band Polarimetric-Radar Estimates of Drop-Size Distributions From Coincident S-Band Polarimetric Estimates and Measured Raindrop Spectra”. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 46, p. 3067-3075, doi: 10.1109/TGRS.2008.2000757; ISSN: 0196-2892. **IF: 3.157, SRJ=2.863**
50. Marzano F. S., Scaranari D., Montopoli M., and Vulpiani G., (2008). “Supervised classification and estimation of hydrometeors from C-band dual-polarized radars: A Bayesian approach”. *IEEE Transactions on Geoscience and Remote Sensing*, 46(1), 85-98. doi:10.1109/TGRS.2007.906476; ISSN: 0196-2892. **IF: 3.157, SRJ=2.863**
51. Verdecchia M., Coppola E., Faccani C., Ferretti R., Memmo A., Montopoli M., Marzano F. S., (2008). “Flood forecast in complex orography coupling distributed hydro-meteorological models and in-situ and remote sensing data”, *Meteorology and Atmospheric Physics*, 101(3-4), 267-285. doi:10.1007/s00703-007-0278-z; eISSN: 1436-5065. **IF: 1.034, SRJ=1.070**

#### Year 2007

52. Montopoli M. and Marzano F. S., (2007). “Maximum-likelihood retrieval of modeled convective rainfall patterns from midlatitude C-band weather radar data”. *IEEE Transactions on Geoscience and Remote Sensing*, 45(7), 2403-2416. doi:10.1109/TGRS.2007.896551; ISSN: 0196-2892. **IF: 3.64, SRJ=2.772**
53. Montopoli M., Marzano F. S., Tognolatti P., Pierdicca N., Perrotta G., (2007). “Remote sensing of the Moon sub-surface from a spaceborne microwave radiometer aboard the European Student Moon Orbiter (ESMO)”, *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Barcelona Spain, 23-28 June, p. 4451 -4454, doi: 10.1109/IGARSS.2007.4423843; ISBN: 978-142441212-9. **IF: NA, SRJ=NA**

54. Montopoli M., Vulpiani G., Anagnostou M. N., Anagnostou E. N., Marzano F.S., (2007). "Processing disdrometer raindrop spectra time series from various climatological regions using estimation and autoregressive methods", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, pp. 2268-2271, doi: [10.1109/IGARSS.2007.4423293](https://doi.org/10.1109/IGARSS.2007.4423293); ISBN: 978-142441212-9. **IF: NA, SRJ=NA**
55. Marzano F.S., Scaranari D., Montopoli M., Vulpiani G., Anagnostou M. N., Anagnostou E. N., (2007), "Bayesian classification of hydrometeors from polarimetric radars at S- and X- bands: algorithm design and experimental comparisons", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Pages 4156-4159, doi:[10.1109/IGARSS.2007.4423765](https://doi.org/10.1109/IGARSS.2007.4423765); ISBN: 978-142441212-9
56. Anagnostou M.N, Anagnostou E.N, Vulpiani G, Montopoli, M, Marzano F.S., Vivekanandan J., (2007), "Evaluation of X-band polarimetric radar estimates of drop size distributions from coincident S-band Polarimetric estimates and measured raindrop spectra", *IEEE Geoscience and Remote Sensing Symposium (IGARSS)*, Pages 3575-3578, doi: [10.1109/IGARSS.2007.4423618](https://doi.org/10.1109/IGARSS.2007.4423618); ISBN: ;978-142441212-9

#### **Year 2006**

57. Montopoli M., Marzano F. S., Vulpiani G., Fornasiero A., Alberoni P. P., Ferraris L. and Rebora N., (2006). "Spatial characterization of raincell horizontal profiles from C-band radar measurements at mid-latitude". *Advances in Geosciences*, 7, 285-292, doi:[10.5194/adgeo-7-285-2006](https://doi.org/10.5194/adgeo-7-285-2006); ISSN: 1680-7359. **IF: 0.58, SRJ=0.340**
58. Marzano F. S., Scaranari D., Celano M., Alberoni P. P., Vulpiani G. and Montopoli M., (2006). "Hydrometeor classification from dual-polarized weather radar: Extending fuzzy logic from S-band to C-band data". *Advances in Geosciences*, 7, 109-114, doi:[10.5194/adgeo-7-109-2006](https://doi.org/10.5194/adgeo-7-109-2006); ISSN: 1680-7359. **IF: 0.58, SRJ=0.340**

## **BOOK and Chapters**

1. MONTOPOLI M, AN INTRODUCTION ON RAIN GAUGES AND DISDROMETERS (2010). Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection. In: D. CIMINI, F.S. MARZANO AND G. VISCONTI. Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection. BERLINO:Springer Verlag, ISBN: 3642129676
2. Montopoli M (2010). Weather radar principles and ground measurement of rain. In: Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection. BERLIN HEIDELBERG:Springer-Verlag, ISBN: 3642129676

## **List of conference contributions**

1. Mario Montopoli, Frank S. Marzano, Domenico Cimini, and Luigi Mereu (2016), Volcanic eruption source parameters from active and passive microwave sensors, ORAL, EGU General Assembly 2016,.
2. Stefano Barbieri, Errico Picciotti, Frank Marzano, Mario Montopoli, Saverio Di Fabio, Francesca Sini, Marco Pellegrini, Francesco Iocca (2016), Using RAPP processing chain with low-cost dual-polarization X-band mini radars: improvements and application to Adriatic field campaigns, European conference on radar in meteorology and Hydrology (ERAD), POSTER, Antalia Turkey, 10-14 October 2016.
3. Elisa Adirosi, Nicoletta Roberto, Mario Montopoli, Patrick Gatlin, Ali Tokay, Luca Baldini (2016), Synergy between micro rain radar and disdrometer to improve raindrop size distribution vertical profiles, European conference on radar in meteorology and Hydrology (ERAD), POSTER, Antalia Turkey, 10-14 October 2016
4. Nicoletta Roberto, Elisa Adirosi, Mario Montopoli, Gianfranco Vulpiani, Stefano Dietrich, Luca Baldini (2016), Severity of storms associated to lightning from dual polarization radar measurements, European conference on radar in meteorology and Hydrology (ERAD), ORAL, Antalia Turkey, 10-14 October 2016
5. Saverio Mori, Frank S. Marzano, Luca Pulvirenti, Mario Montopoli (2016), Quantitative estimation of precipitation on X-Band Synthetic Aperture Radar Image, European conference on radar in meteorology and Hydrology (ERAD), ORAL, Antalia Turkey, 10-14 October 2016.
6. Gianfranco Vulpiani, Emilio Guerriero, Pietro Giordano, Mario Montopoli (2016), Performance analysis of the Italian radar QPE, European conference on radar in meteorology and Hydrology (ERAD), Poster, Antalia Turkey, 10-14 October 2016.
7. Errico Picciotti, Frank Marzano, Saverio Di Fabio, Mario Montopoli (2016), Near Real-Time Detection of Tephra Eruption Onset by using Weather Radar: case studies of Grimsvotn and Etna eruptions, European conference on radar in meteorology and Hydrology (ERAD), Poster, Antalia Turkey, 10-14 October 2016.
8. Luca Baldini, Mario Montopoli, Nicoletta Roberto, Elisa Adirosi, Eugenio Gorgucci (2016), Investigation of quasi-vertical profiles of C-band radar polarimetric data for QPE in complex orography, European conference on radar in meteorology and Hydrology (ERAD), Poster, Antalia Turkey, 10-14 October 2016.
9. Mario Montopoli, Domenico Cimini, Frank Marzano (2016), Investigating the value of passive microwave observations for monitoring volcanic eruption source parameters, EGU General Assembly 2016, Poster
10. Mario Montopoli, Frank S. Marzano, Marianna Biscarini, Luca Milani, Domenico Cimini, Klaide De Sanctis, Saverio Di Fabio (2016), Evaluation of Deep Space Ka-Band Data Transfer using Radiometeorological Forecasts and Radiometer Measurements, EGU General Assembly 2016, Poster.
11. Elisa Adirosi, Luca Baldini, Nicoletta Roberto, Mario Montopoli, Eugenio Gorgucci, Patrick Gatlin, and Ali Tokay (2016), Estimation of raindrop drop size distribution vertical profile from simultaneous micro rain radar and 2D video disdrometer measurements, EGU General Assembly 2016, Poster.
12. Saverio Mori ; Mario Montopoli ; Luca Pulvirenti ; Frank S. Marzano ; Nazzareno Pierdicca, (2016), Detection and quantification of precipitations signatures on synthetic aperture radar imagery at X band, Proc. SPIE 10003, SAR Image Analysis, Modeling, and Techniques XVI, Edinburgh, United Kingdom, Oct. 2016, doi: 10.1117/12.2241943
13. Marta Tecla Falconi, Frank Silvio Marzano, Mario Montopoli, Luca Baldini, (2016), "Combination Of External Calibration Techniques For C-Band Polarimetric Weather Radar Performance Monitoring", European conference on radar in meteorology and Hydrology (ERAD), Oral presentation, Antalia Turkey, 10-14 October 2016.
14. S. Mori, Montopoli M., L. Pulvirenti, F. S. Marzano, N. Pierdicca, Retrieving atmospheric precipitation from

synthetic aperture radar imagery at X and Ka bands for high-spatial resolution hydrometeorological applications, ESA-ESRIN, Earth Observation for Water Cycle Science 2015, Frascati, 20 - 23 October 2015.

15. M. Biscarini, F.S. Marzano, L. Iess, Montopoli M., K. De Sanctis, S. Di Fabio, L. Bernardini, M. Gregnanin, M. Parisi, M. Montagna, M. Mercolino, M. Lanucara (2014). Evaluation of Deep Space Ka-Band Data Transfer using Radiometeorological Forecast Models. In: *Antennas and Propagation (EuCAP)*, 2014 8th European Conference on. p. 499-503, doi: [10.1109/EuCAP.2014.6901801](https://doi.org/10.1109/EuCAP.2014.6901801)
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