

Zina (Zinovia) Mitraka

EDUCATION

PhD Degree in the **Computer Science, Control and GeoInformation Doctorate** of the **Computer Science Department** of the **University of Rome Tor Vergata**, Rome, Italy. April 2016.

<http://www.disp.uniroma2.it/geoinformation/>

Thesis Title: **Earth Observation and the Copernicus Sentinels for Urban Climate**

Master Degree in **Environmental and Sanitary Engineering** of the **Environmental Engineering Department** of the Technical University of Crete, Chania, Greece. June 2011.

<http://www.tuc.gr/enveng-department.html>

Degree in **Applied Mathematics – Department of Applied Mathematics** – Faculty of Sciences and Engineering, University of Crete, Heraklion, Greece. December 2006.

<http://www.math.uoc.gr/en/>

PHD THESIS

Title: **Earth Observation and the Copernicus Sentinels for Urban Climate**

Supervisor: Fabio Del Frate (delfrate@disp.uniroma2.it)

MASTER THESIS

Title: **Sub-pixel classification of satellite imagery for the estimation of land surface emissivity in urban environment**

Supervisor: Tsouchlaraki Androniki (niki.tsouchlaraki@enveng.tuc.gr)

DIPLOMA DISSERTATIONS

Title: **Numerical Solution of the Parabolic Problem using Parallel Processing Techniques**

Supervisor: Katsaounis Theodoros (thodoros@tem.uoc.gr)

Title: **Homogeneous Exact non – Oscillatory 2nd order Schemes**

Supervisor: Katsaounis Theodoros (thodoros@tem.uoc.gr)

WORK EXPERIENCE

- 01/03/2021 – today **Assistant Researcher** in the Remote Sensing Lab of the **Foundation for Research and Technology Hellas** (<http://www.rslab.gr>)
- 01/11/2014 – 28/02/2021 **Post-Doctoral Research Fellow** in the Remote Sensing Lab of the **Foundation for Research and Technology Hellas** (<http://www.rslab.gr>)
- 01/11/2011 – 01/04/2013 **Young Graduate Trainee** at the Science Strategy, Coordination and Planning Office (EOP-SA) of European Space Research Institute (ESRIN) – **European Space Agency** (http://www.esa.int/esaMI/ESRIN_SITE/index.html)
- 01/04/2007 – 30/10/2011 **Research Associate** in the Remote Sensing Lab of the **Foundation for Research and Technology Hellas** (<http://www.rslab.gr>)
- 11/12/2006 – 18/01/2007 **Software engineering assistant** on the computer support team of the **Chemical Process Engineering Research Institute** of the National Centre for Research and Technology-Hellas (<http://www.cperi.certh.gr>)
- 20/05/2006 – 20/08/2006 **Work Placement** on the Remote Sensing Lab of the Regional Analysis Division – Foundation for Research and Technology Hellas (<http://www.rslab.gr>)

PRINCIPAL INVESTIGATOR FOR RESEARCH PROJECTS

EO4UTEMP | Large scale exploitation of satellite data for the assessment of urban surface temperatures
Duration: 2020 – 2026
Funding: European Space Agency

PARTICIPATION IN RESEARCH PROJECTS

urbisphere | coupling dynamic cities and climate
Duration: 2020 – 2026
Funding: European Research Council

CURE | Copernicus for Urban Resilience in Europe
<http://cure-copernicus.eu/>
Duration: 2020 – 2023
Funding: European Commission (H2020)

DiAS | Disaster & Agriculture Sentinel applications
<http://dias.topo.auth.gr/>
Duration: 2018 – 2020
Funding: General Secretariat for Research and Technology – Greece

ThinkNATURE | Development of a multi-stakeholder dialogue platform and Think tank to promote innovation with Nature based solutions

<https://www.think-nature.eu/>

Duration: 2016 – 2019

Funding: European Commission (H2020)

ECOPOTENTIAL | Improving future ecosystem benefits through earth observations

<https://www.ecopotential-project.eu/>

Duration: 2015 - 2019

Funding: European Commission (H2020)

SEN4RUS | Exploiting Sentinels for supporting urban planning applications at city and regional levels in Russia

<http://www.sen4rus.eu/>

Duration: 2016 - 2019

Funding: General Secretariat for Research and Technology – Greece

ENVIRONMENT | Research in the Scientific area "Environment" in the framework of the Hellenic Republic-Siemens Agreement partially funded by the Programmatic Agreement Between Research Centers

Duration: 2015 - 2017

Funding: SIEMENS - General Secretariat for Research and Technology – Greece

URBANFLUXES | URBan ANThropogenic heat FLUX from Earth observation Satellites

<http://urbanfluxes.eu/>

Duration: 2015 - 2017

Funding: European Commission (H2020)

EO4SEB | Advanced Earth Observation techniques for urban Surface Energy Balance modelling

<http://rslab.gr/projects/eo4seb/>

Duration: 2013 - 2015

Funding: General Secretariat for Research and Technology – Greece

SEN4LST | Synergistic Use Of The Sentinel Missions For Estimating And Monitoring Land Surface Temperature

Duration: 2012 - 2014

Funding: European Space Agency

BRIDGE | Sustainable urban planning decision support accounting for urban metabolism

<http://www.bridge-fp7.eu/>

Duration: 2008 - 2011

Funding: European Commission (FP7 Collaborative Project)

UHI | Urban Heat Islands and Urban Thermography

Analysis of the UHI trends over 10 European cities (Athens, Bari, Brussels, Budapest, Lisbon, London, Madrid, Paris, Seville, Thessaloniki) over the last 10 years, using a multi-sensor approach.

Duration: 2008 - 2011

Funding: European Space Agency (ITT ESRIN/AO/1-5685/08/I-LG)

Plumesat | Use of a satellite ground receiving station for the detection and monitoring of fires and plumes caused by major natural and man-made disasters.

Duration: 2005 - 2007

Funding: General Secretariat for Research and Technology – Greece

Precipitable Water | Study on the spatial – temporal distribution of atmospheric water content with the combined use of satellite remote sensing and non-linear science

<http://rslab.gr/projects/pw/index.html>

Duration: 2005 – 2007

Funding: General Secretariat for Research and Technology – Greece

DISTINCTIONS AND AWARDS

Living Planet Fellowship from the European Space Agency (ESA) for the EO4UTEMP project, Duration July 2020 – June 2022, Heraklion, Greece.

Research Scholarship for high level scientific stay (Séjour scientifique de haut niveau) (SSHN), in the framework of the Greek Youth Mobility Fund of the French Embassy in Greece, supported by the French Ministry of National Education, Higher Education and Research, September 2019 – December 2019, CESBIO, Toulouse, France.

Best paper prize, 1st place in the Joint Urban Remote Sensing Event, 30 March – 1 April 2015 Lausanne, Switzerland

Best poster award in the 4th GIONET Summer School, 30 June – 4 July 2014, ESA ESRIN Frascati, Italy

Best poster award in the ESA 4th Advanced Training Course in Land Remote Sensing, 01 – 5 July 2013, Harokopio University, Athens, Greece

National PhD Tuition Fee Award and Research Scholarship, Tor Vergata University of Rome, Italy, 2012 - 2015.

European Space Agency and Greek General Secretariat for Research and Technology Traineeship Programme, 2011-2013.

TEACHING EXPERIENCE

ESA Earth Observation Remote Sensing Workshop 2020, Land Remote Sensing, Thermal Remote Sensing, 11 May – 15 May 2020, ESA, ESEC-Galaxia, Transinne, Belgium

ESA Earth Observation Remote Sensing Workshop 2018, Thermal Remote Sensing Introduction, 10 December – 14 December 2018, ESA, ESEC-Galaxia, Transinne, Belgium

University of Crete, Department of Physics, February 2018 – June 2018, Heraklion, Greece
Teaching Assistant in the Course: Principles and applications of satellite remote sensing

ESA Earth Observation Summer School on Earth System Monitoring and Modelling, Practical, 1 August – 12 August 2016, ESA ESEC- Galaxia, Belgium

Lecture: Sentinel-1 and Sentinel-2 practical session.

University of Crete, Department of Physics, February 2016 – June 2016, Heraklion, Greece

Teaching Assistant in the Course: Principles and applications of satellite remote sensing

University of Rome Tor Vergata, Department of Computer Science, October 2013 – June 2014, Rome, Italy
Teaching Assistant in the Course: Remote Sensing and Cartography

University of Crete, Department of Physics, February 2010 – June 2011, Heraklion, Greece
Teaching Assistant in the Course: Principles and applications of satellite remote sensing

EDITORIAL BOARDS

Member of the Editorial Board of the Urban Remote Sensing Section, Remote Sensing — Open Access Journal, MDPI

Guest Editor for the Special Issue "Application of Remote Sensing in Urban Climatology", Remote Sensing — Open Access Journal, MDPI

SCIENTIFIC COMMITTEES

Joint Urban Remote Sensing Event 2019 (JURSE 2019), 22 - 24 May, 2019, Vannes, France.

SPIE, Remote Sensing Technologies and Applications in Urban Environments, 9 - 12 September 2019, Strasburg, France.

ESA Living Planet Symposium 2019 (LPS19), 13-17 May 2019, Milan, Italy.

Seventh International Conference on Remote Sensing and Geoinformation of Environment (RSCy2019), 18-21 March, 2019, Paphos, Cyprus.

Mapping Urban Areas from Space (MUAS2019), 30-31 October 2018, Frascati, Italy.

SPIE, Remote Sensing Technologies and Applications in Urban Environments, organized in the framework of SPIE Remote Sensing, 10-13 September, 2018, Berlin, Germany.

Earth Observation Supporting Sustainability Research, 38th Annual EARSeL Symposium 2018, 9-12 July, 2018, Chania, Greece.

Sixth International Conference on Remote Sensing and Geoinformation of Environment (RSCy2019), 26 - 29 March, 2018, Paphos, Cyprus.

TRAINING COURSES ATTENDANCE

GIONET Summer School 2014: Monitoring the Earth for Environmental Policy and Decision Making, 30 June – 4 July 2014, ESA/ESRIN, Frascati, Italy

ESA 4th Advanced Training Course in Land Remote Sensing, 01 – 5 July 2013, Harokopio University, Athens, Greece

ESA Earth Observation Summer School on Earth System Monitoring and Modelling, 30 July – 10 August 2012, ESA – ESRIN, Frascati, Rome

Computing for Data Analysis, 2 January – 6 February 2013, Johns Hopkins University, on-line course, Coursera

Computational Photography, 25 March – 7 May 2013, Georgia Institute of Technology, on-line course, Coursera

Designing Cities, 7 October 2013 – 4 January 2014, University of Pennsylvania, on-line course, Coursera

Machine Learning, 14 October 2013 – 18 January 2014, Stanford University, on-line course, Coursera

Global Warming: The Science of Climate Change, 21 October 2013 – 10 January 2014, The University of Chicago, on-line course, Coursera

An Introduction to Interactive Programming in Python, 7 October 2013 – 10 January 2014, Rice University, on-line course, Coursera

LANGUAGES

Excellent knowledge of **English** (Cambridge Proficiency)

Good knowledge of **Italian** (B2 European Level)

PUBLICATIONS IN PEER-REVIEW JOURNALS

- Lantzanakis, G., Mitraka, Z., Chrysoulakis, N., 2020. X-SVM: An Extension of C-SVM Algorithm for Classification of High-Resolution Satellite Imagery. *IEEE Trans. Geosci. Remote Sens.* 1–11. DOI: 10.1109/TGRS.2020.3017937
- Nikoloudakis, N., Stagakis, S., Mitraka, Z. et al. Spatial interpolation of urban air temperatures using satellite-derived predictors. *Theor Appl Climatol* 141, 657–672 (2020).
- Mitraka, Z., Siachalou, S., Doxani, G., Patias, P., 2020. Decision Support on Monitoring and Disaster Management in Agriculture with Copernicus Sentinel Applications. *Sustainability* 12, 1233. <https://doi.org/10.3390/su12031233>
- Tzelidi, D., Stagakis, S., Mitraka, Z., Chrysoulakis, N., 2019. Detailed urban surface characterization using spectra from enhanced spatial resolution Sentinel-2 imagery and a hierarchical multiple endmember spectral mixture analysis approach. *J. Appl. Remote Sens.* 13, 1. <https://doi.org/10.1117/1.JRS.13.016514>
- Chrysoulakis, N., Grimmond, S., Feigenwinter, C., Lindberg, F., Gastellu-Etchegorry, J.-P., Marconcini, M., Mitraka, Z., Stagakis, S., Crawford, B., Olofson, F., Landier, L., Morrison, W., Parlow, E., 2018. Urban energy exchanges monitoring from space. *Sci. Rep.* 8, 11498. <https://doi.org/10.1038/s41598-018-29873-x>
- Chrysoulakis, N., Mitraka, Z., Gorelick, N., 2019. Exploiting satellite observations for global surface albedo trends monitoring. *Theor. Appl. Climatol.* 137, 1171–1179. <https://doi.org/10.1007/s00704-018-2663-6>
- Parastatidis, D., Mitraka, Z., Chrysoulakis, N., Abrams, M., 2017. Online Global Land Surface Temperature Estimation from Landsat. *Remote Sens.* 9, 1208. doi:10.3390/rs9121208
- Gastellu-Etchegorry, J.P., Lauret, N., Yin, T., Landier, L., Kallel, A., Malenovsky, Z., Bitar, A. Al, Aval, J., Benhmida, S., Qi, J., Medjdoub, G., Guilleux, J., Chavanon, E., Cook, B., Morton, D., Chrysoulakis, N., Mitraka, Z., 2017. DART: Recent Advances in Remote Sensing Data Modeling With Atmosphere, Polarization, and Chlorophyll Fluorescence. *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.* 10, 2640–2649. doi:10.1109/JSTARS.2017.2685528
- Mitraka, Z., Doxani, G., Del Frate, F., & Chrysoulakis, N. (2016). Uncertainty Estimation of Local-Scale Land Surface Temperature Products Over Urban Areas Using Monte Carlo Simulations. *IEEE Geoscience and Remote Sensing Letters*, 1–5. <http://doi.org/10.1109/LGRS.2016.2553367>
- Mitraka, Z., Del Frate, F., & Carbone, F. (2016). Nonlinear Spectral Unmixing of Landsat Imagery for Urban Surface Cover Mapping. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 1–11. <http://doi.org/10.1109/JSTARS.2016.2522181>
- Doxani, G., Mitraka, Z., Gascon, F., Goryl, P., & Bojkov, B. R. (2015). A Spectral Unmixing Model for the Integration of Multi-Sensor Imagery: A Tool to Generate Consistent Time Series Data. *Remote Sensing*, 7, 14000–14018. doi:10.3390/rs71014000

- Mitraka, Z., Chrysoulakis, N., Doxani, G., Del Frate, F., & Berger, M. (2015). Urban Surface Temperature Time Series Estimation at the Local Scale by Spatial-Spectral Unmixing of Satellite Observations. *Remote Sensing*, 7(4), 4139–4156. doi:10.3390/rs70404139
- Poursanidis, D., Chrysoulakis, N., & Mitraka, Z. (2015). Landsat 8 vs. Landsat 5: A comparison based on urban and peri-urban land cover mapping. *International Journal of Applied Earth Observation and Geoinformation*, 35, 259–269. doi:10.1016/j.jag.2014.09.010
- Mitraka, Z., Diamantakis, E., Chrysoulakis, N., Castro, E., Jose, R., Gonzalez, A., & Blečić, I. (2014). Incorporating Bio-Physical Sciences into a Decision Support Tool for Sustainable Urban Planning. *Sustainability*, 6(11), 7982–8006. doi:10.3390/su6117982
- Chrysoulakis, N., Mitraka, Z., Stathopoulou, M., & Cartalis, C. (2013). A comparative analysis of the urban web of the greater Athens agglomeration for the last 20 years period on the basis of Landsat imagery. *Fresenius Environmental Bulletin*, 22(7), 2139–2144, Proceedings of the 3rd International CEMEPE & SECOTOX Conference, Skiathos, Greece, June 19-24, 2011, ISBN 978-960-6865-43-5
- Mitraka, Z., & Chrysoulakis, N. (2013). Satellite Based Estimation of Urban Surface Emissivity with the Use of Sub-Pixel Classification Techniques. (C. G. Helmig & P. T. Nastos, Eds.) *Advances in Meteorology, Climatology and Atmospheric Physics*, 231–237. doi:10.1007/978-3-642-29172-2
- Chrysoulakis, N., Lopes, M., San José, R., Grimmond, S., Magliulo, V., Klostermann, J., Synnefa, A., Mitraka, A., Castro, E.A, González, A., Vogt, R., Vesala, T., Spano, D., Pigeon, G., Freer-Smith, P., Staszewski, T., Hodges, N., Mills, G. & Cartalis, C. (2013). Sustainable urban metabolism as a link between bio-physical sciences and urban planning: The BRIDGE project. *Landscape and Urban Planning*, 112, 100–117.
- Petropoulos, Y., Partsinevelos, P. & Mitraka, Z. (2012). Change detection of surface mining activity and reclamation based on a machine learning approach of multi-temporal Landsat TM imagery. *Geocarto International*, doi:10.1080/10106049.2012.706648
- Mitraka, Z., Chrysoulakis, N., Kamarianakis, Y., Partsinevelos, P. & Tsouchlaraki, A. (2013). Improving the estimation of urban surface emissivity based on sub-pixel classification of high resolution satellite imagery. *Remote Sensing of Environment*, 117, 125-134. doi: 10.1016/j.rse.2011.06.025
- Hadjimitsis, D., Mitraka, Z., Gazani, I., Retalis, A., Chrysoulakis, N. & Michaelides, S. (2011). Estimation of spatio-temporal distribution of precipitable water using MODIS and AVHRR data: A case study for Cyprus. *Advances in Geoscience*, 30, 23-29. doi: 10.5194/adgeo-30-23-2011.
- Chrysoulakis, N., Kamarianakis, Y., Xu, L., Mitraka, Z. & Ding, J. (2008). Combined use of MODIS, AVHRR and radiosonde data for the estimation of spatiotemporal distribution of precipitable water. *Journal of Geophysical Research*, 113, D05101. doi: 10.1029/2007JD009255

BOOK CHAPTERS

- Mitraka, Z., Chrysoulakis, N. 2018. Earth Observation for Urban Climate Monitoring: Surface Cover and Land Surface Temperature, in: Multi-purposeful Application of Geospatial Data. InTech, Rijeka, Croatia, p. 125-145. doi: 10.5772/intechopen.71986
- Landier, L., Lauret, N., Yin, T., Al Bitar, A., Gastellu-Etchegorry, J., Feigenwinter, C., Parlow, E., Mitraka, Z., Chrysoulakis, N., 2016. Remote Sensing Studies of Urban Canopies: 3D Radiative Transfer Modeling, in: Ergen, M. (Ed.), Sustainable Urbanization. InTech, Rijeka, Croatia, p. 180. doi:10.5772/63887
- Lantzanakis, G., Mitraka, Z., Chrysoulakis, N., 2017. Comparison of Physically and Image Based Atmospheric Correction Methods for Sentinel-2 Satellite Imagery, in: Perspectives on Atmospheric Sciences. pp. 255–261. doi:10.1007/978-3-319-35095-0_36
- Mitraka, Z., Diamantakis, M., Chrysoulakis, N., 2014. The BRIDGE Decision Support System, in: Chrysoulakis, N., Castro, E., Moors, E. (Eds.), Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, London and New York.
- Cartalis, C., Stathopoulou, M., Mitraka, Z., Chrysoulakis, N., 2014. Use of Earth Observation to support urban modelling parameterization in BRIDGE, in: Chrysoulakis, N., de Castro, E.A., Moors, E.J. (Eds.), Understanding Urban Metabolism: A Tool for Urban Planning. Routledge, London and New York, pp. 58–68.s
- Hodges, N., González, A., Mitraka, Z. 2014. Decision support tools for urban planning. in N. Chrysoulakis, E. Castro, & E. Moors (Eds.), *Understanding Urban Metabolism: A Tool for Urban Planning*. London and New York: Routledge.
- Mitraka, Z., Lazzarini, M., Doxani, G., Frate, F. Del, & Ghedira, H. (2014). Uncertainty indices of high spatial resolution Land Surface Temperature estimates over urban areas. In Land Product Validation and Evolution Workshop, Frascati, Italy, 28-30 January 2014.

CONFERENCE PUBLICATIONS

- Mitraka, Z., Stagakis, S., Lantzanakis, G., Chrysoulakis, N., Feigenwinter, C. and Grimmond, S., 2019. High spatial and temporal resolution Land Surface Temperature for surface energy fluxes estimation. In Proceeding of Joint Urban Remote Sensing Event JURSE 2019, held in Vannes, France, May 22 - 24 (10.1109/JURSE.2019.8808951).
- Nikoloudakis, N., Stagakis, S., Mitraka, Z., Kamarianakis, Y., Chrysoulakis, N., Kochilakis, G. and Spyridakis, N., 2018. Estimation of urban air temperature spatial patterns based on sensors network observations and satellite derived predictors. Proc. SPIE 10793, Remote Sensing Technologies and Applications in Urban Environments III, 1079309, held in Berlin, Germany, September 10-13.
- Gastellu-Etchegorry, J.-P., Landier, L., Al Bitar, A., Lauret, N., Yin, T., Qi, J., Guilleux, J., Chavanon, E., Feigenwinter, C., Mitraka, Z., Chrysoulakis, N., 2018. Time Series of Urban Radiative Budget Maps Derived From EO Satellites Using a Physical Remote Sensing Model, in: 4th International Conference on Advanced Technologies For Signal and Image Processing – ATSIP' 2018 March 21-24, 2018 – Sousse, Tunisia.
- Chrysoulakis, N., Marconcini, M., Sazonova, A., Tal, A., Dugun, S., Parlow, E., Charalampopoulou, V., Mitraka, Z., Esch, T., Catur, M., Feigenwinter, C., 2018. Copernicus Sentinels for Urban Planning in Russia: The SEN4RUS. Geophys. Res. Abstr. Vol. 20, EGU2018-17952, 2018 EGU Gen. Assem. 2018, Vienna | Austria | 8–13 April 2018 20, 17952.
- Chrysoulakis, N., Grimmond, S., Feigenwinter, C., Lindberg, F., Gastellu-Etchegorry, J.-P., Marconcini, M., Del Frate, F., Klostermann, J., Mitraka, Z., Stagakis, S., Olofson, F., Landier, L., Crawford, B., Esch, T., Parlow, E., 2018. Urban Energy Balance from Space: final results from URBANFLUXES No Title, in: Geophysical Research Abstracts Vol. 20, EGU2018-18093, 2018 EGU General Assembly 2018, Vienna | Austria | 8–13 April 2018. Vienna, Austria.
- Chrysoulakis, N., Marconcini, M., Gastellu-Etchegorry, J.-P., Grimmond, S., Feigenwinter, C., Lindberg, F., Frate, D., Fabio, Klostermann, J., Mitraka, Z., Esch, T., Landier, L., Parlow, E., Olofson, F., 2018. Heat Flux Estimations from Space: the URBANFLUXES Products, in: Land Product Validation and Evolution Workshop, Frascati, Italy, 27 Feb - 1 Mar.
- Mitraka, Z., Chrysoulakis, N., Gorelick, N., 2018. The Global Blue-Sky Albedo Change Between 2000 – 2015 seen from MODIS, in: Land Product Validation and Evolution Workshop, Frascati, Italy, 27 Feb - 1 Mar.
- Mitraka, Z., Feigenwinter, C., Chrysoulakis, N., Parlow, E., Grimmond, S., Lindberg, F., Wicki, A., Marconcini, M., 2017. Towards discriminating between zones with different thermal behaviour in cities, in: 2017 Joint Urban Remote Sensing Event (JURSE). IEEE, pp. 1–4. doi:10.1109/JURSE.2017.7924593
- Chrysoulakis, N., Marconcini, M., Gastellu-Etchegorry, J.P., Grimmond, C.S.B., Feigenwinter, C., Lindberg, F., Del Frate, F., Klostermann, J., Mi, Z., Esch, T., Landier, L., Gabey, A., Parlow, E., Olofson, F., 2017.

- Anthropogenic heat FLUX estimation from Space, in: 2017 Joint Urban Remote Sensing Event (JURSE). IEEE, pp. 1–4. <https://doi.org/10.1109/JURSE.2017.7924591>
- Marconcini, M., Heldens, W., Del Frate, F., Latini, D., Mitraka, Z., Lindberg, F., 2017. EO-based products in support of urban heat fluxes estimation, in: 2017 Joint Urban Remote Sensing Event (JURSE). IEEE, pp. 1–4. doi:10.1109/JURSE.2017.7924592
- Al Bitar, A., Landier, L., Guilleron, J., Lauret, N., Gastellu-Etchegorry, J.P., Tiangang, Y., Feigenwinter, C., Mitraka, Z., Chrysoulakis, N., 2017. Assessing Urban canopies 3D radiative and Energy Budgets with remote sensing and DART model, in: 2017 Joint Urban Remote Sensing Event (JURSE). IEEE, pp. 1–4. doi:10.1109/JURSE.2017.7924595
- Chrysoulakis, N., Marconcini, M., Gastellu-Etchegorry, J., Grimmond, S., Feigenwinter, C., Lindberg, F., Del Frate, F., Klostermann, J., Mitraka, Z., Esch, T., Landier, L., Gabey, A., Parlow, E., Olofson, F., 2016. Anthropogenic Heat Flux Estimation from Space: Results of the first phase of the URBANFLUXES Project, in: AGU Fall Meeting Abstracts, San Francisco, USA, 12-16 December.
- Mitraka, Z., Chrysoulakis, N., Gorelick, N., 2016. The global blue-sky albedo change between 2000 – 2015 seen from MODIS, in: AGU Fall Meeting Abstracts, San Francisco, USA, 12-16 December.
- Lantzanakis, G., Mitraka, Z., Chrysoulakis, N., 2016. Comparison of Physically and Image Based Atmospheric Correction Methods for Sentinel-2 Satellite Imagery, in: Perspectives on Atmospheric Sciences. pp. 255–261. doi:10.1007/978-3-319-35095-0_36
- Landier, L., Al Bitar, A., Lauret, N., Aubert, S., Mitraka, Z., Parlow, E., Heldens, W., Kotthaus, S., Grimmond, S., Lindberg, F., Chrysoulakis, N., 2016. 3D modeling of radiative transfer and energy balance in urban canopies combined to remote sensing acquisitions, in: IGARSS 2016, 10-15 July 2016. Beijing, China, pp. 6738–6741.
- Chrysoulakis, N., Heldens, W., Grimmond, S., Feigenwinter, C., Lindberg, F., Frate, F. Del, Klostermann, J., Mitraka, Z., Esch, T., Albitar, A., Gabey, A., Parlow, E., Olofson, F., 2016. A Novel Approach for Anthropogenic Heat Flux Estimation From Space, in: IGARSS 2016, 10-15 July 2016. Beijing, China, pp. 6774–6777.
- Mitraka, Z., Frate, F. Del, Schiavon, G. 2016. Mapping the Urban Surface in a Sub-Pixel Level with Multispectral High Resolution Satellite Imagery, in: IGARSS 2016, 10-15 July 2016. Beijing, China, pp. 7014–7017.
- Landier, L., Lauret, N., Bitar, A. Al, Mitraka, Z., Feigenwinter, C., Parlow, E., Heldens, W., Grimmond, S., Lindberg, F., Chrysoulakis, N., Kingdom, U., 2016. Calibration of DART Radiative Transfer Model with Satellite Images for Simulating Albedo and Thermal Irradiance Images and 3D Radiative Budget of Urban Environment, in: 36th EARSeL Symposium, 20-24 June 2016 University of Bonn. Bonn, Germany, pp. 120–121.
- Chrysoulakis, N., Heldens, W., Gastellu-Etchegorry, J.-P., Grimmond, S., Feigenwinter, C., Lindberg, F., Del Frate, F., Klostermann, J., Mitraka, Z., Thomas, E., Al Bitar, A., Gabey, A., Parlow, E., Olofson, F., 2016. Anthropogenic heat flux estimation from space: first results, in: 36th EARSeL Symposium, 20-24 June 2016 University of Bonn. Bonn, Germany, p. 248.

- Chrysoulakis, N., Marconcini, M., Sazonova, A., Tal, A., Dugun, S., Eberhard, P., Charalampopoulou, V., Mitraka, Z., Thomas, E., Cavur, M., Feigenwinter, C., 2016. Copernicus Sentinels for Urban Planning in Russia: The SEN4RUS Project, in: 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016. Singapore.
- Chrysoulakis, N., Heldens, W., Gastellu-Etchegorry, J.-P., Grimmond, C.S., Feigenwinter, C., Lindberg, F., Del Frate, F., Klostermann, J., Mitraka, Z., Esch, T., Al Bitar, A., Gabey, A., Parlow, E., Frans, O., 2016. Anthropogenic Heat Flux Estimation from Space: The URBANFLUXES Project, in: 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016. Singapore.
- Mitraka, Z., Carbone, F., Boutsia, K., Del Frate, F., Schiavon, G., 2016. Sentinel 1 and 2 data for automatic update of land cover maps at national scale, in: ESA Living Planet Symposium 2016, Prague, Prague, Czech Republic 9-13 May 2016.
- Mitraka, Z., Kamarianakis, Y., Chrysoulakis, N., 2016. Hierarchical Bayesian models for downscaling the Sentinel-3 thermal data with the use of Sentinel-2 for urban temperature monitoring, in: ESA Living Planet Symposium 2016, Prague, Prague, Czech Republic 9-13 May 2016.
- Chrysoulakis, N., Heldens, W., Gastellu-Etchegorry, J.-P., Grimmond, S., Feigenwinter, C., Lindberg, F., Del Frate, F., Klostermann, J., Mitraka, Z., Esch, T., Albitar, A., Gabey, A., Parlow, E., 2016. Urban Energy Budget estimation from Sentinels: The URBANFLUXES project, in: ESA Living Planet Symposium 2016, Prague, Prague, Czech Republic 9-13 May 2016.
- Foumelis, M., Chini, M., Cuccu, R., Delgado Blasco, J.-M., Mitraka, Z., 2016. Land cover mapping using InSAR temporal decorrelation estimates from large time series, in: ESA Living Planet Symposium 2016, Prague, Czech Republic, 9-13 May 2016.
- Mitraka, Z., Benas, N., Gorelick, N., & Chrysoulakis, N. (2016). Global land surface albedo maps from MODIS using the Google Earth Engine. In EGU General Assembly, Vienna, Austria, 17–22 April (Vol. 18, p. 11679).
- Chrysoulakis, N., Heldens, W., Grimmond, S., 2016. Anthropogenic heat flux estimation from space: first results, in: EGU General Assembly, Vienna, Austria, 17–22 April. p. 11900.
- Lantzanakis, G., Mitraka, Z., Chrysoulakis, N., 2016. Comparison of physically and image based atmospheric correction methods for Sentinel-2 satellite imagery, in: Themistocleous, K., Hadjimitsis, D.G., Michaelides, S., Papadavid, G. (Eds.), . p. 96880A. doi:10.1117/12.2242889
- Chrysoulakis, N., & Mitraka, Z. (2015). Copernicus Sentinels observations as a tool to evaluate NBS implementation. In Nature-based Solutions to Climate Change in Urban Areas and their Rural Surroundings: Linkages between science, policy and practice, Bonn, Germany, 17-19 November 2015.
- Heldens, W., Del Frate, F., Lindberg, F., Mitraka, Z., Latini, D., Chrysoulakis, N., & Esch, T. (2015). Mapping urban surface characteristics for urban energy flux modelling. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.

- Chrysoulakis, N., Heldens, W., Gastellu-Etchegorry, J.-P., Grimmond, S., Feigenwinter, C., Lindberg, F., ... Olofson, F. (2015). Urban Energy Budget Estimation from Sentinels: The URBANFLUXES Project. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Chrysoulakis, N., Mattia, M., Sazonova, A., Tal, A., Sebnem, D., Eberhard, P., ... Mahmut Cavour. (2015). Copernicus Sentinels for Urban Planning in Russia: The SEN4RUS Project. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Benas, N., Mitraka, Z., Chrysoulakis, N., Marconcini, M., Esch, T., & Lantzanakis, G. (2015). Global Estimates of urban surface albedo time series with the use of cloud computing. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Mitraka, Z., Chrysoulakis, N., Heldens, W., Feigenwinter, C., Lindberg, F., Grimmond, S., ... Gastellu-Etchegorry, J.-P. (2015). Earth Observation for Urban Climate: Mapping the Local Climate Zones. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Mitraka, Z., & Del Frate, F. (2015). The use of neural networks for non - linear spectral unmixing over urban areas. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Del Frate, F., Carbone, F., Mitraka, Z., & Schiavon, G. (2015). VHR Land Cover Map of Rome Obtained Using a Citizen Science Approach. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Boutsia, K., Carbone, F., Del Frate, F., Mitraka, Z., & Schiavon, G. (2015). Automatic Generation of Updated Land Cover Maps at Decametric Spatial Resolution for the whole Italian. In Mapping Urban Areas from Space Conference, Frascati, Italy, 4-5 November.
- Chrysoulakis, N., Esch, T., Grimmond, C. S. B., Parlow, E., Lindberg, F., Frate, D., ... Feigenwinter, C. (2015). A novel approach for anthropogenic heat flux estimation from space. In ICUC9, Toulouse, France (20-24 July).
- Mitraka, Z., Chrysoulakis, N., Gastellu-Etchegorry, J. P., & Del Frate, F. (2015). Exploiting Earth Observation data products for mapping Local Climate Zones. In ICUC9, Toulouse, France (20-24 July).
- Landier, L., Al Bitar, A., Lauret, N., Yin, T., Gastellu-Etchegorry, J. P., Aubert, S., ... Lindberg, F. (2015). Modeling parameters and remote sensing acquisition of urban canopies. In ICUC9, Toulouse, France (20-24 July).
- Lantzanakis, G., Mitraka, Z., & Chrysoulakis, N. (2015). The use of Sentinel-3 synergy products for physically based automatic correction of Sentinel-2 imagery. In ATMOS 2015, Heraklion, Greece, 8-12 June.
- Carbone, F., Del Frate, F., Mitraka, Z., & Schiavon, G. (2015). A Citizen Science approach for the classification of VHR images in urban areas. In Geoscience and Remote Sensing Symposium (IGARSS), 2015 IEEE International. Milano, Italy.
- Mitraka, Z., & Del Frate, F. (2015). Non-linear spectral mixture analysis of Landsat imagery by means of neural networks. In Geoscience and Remote Sensing Symposium (IGARSS), 2015 IEEE International (pp. 1765–1768).

- Doxani, G., Mitraka, Z., Gascon, F., Goryl, P., & Bojkov, B. (2015). An Unmixing-based Model for the integration of multi-sensor imagery: a tool for the future synergy of Sentinel-2 and Sentinel-3 data. In Sentinel-3 for Science Workshop, Venice, Italy, 2-5 June.
- Mitraka, Z., Del Frate, F., & Carbone, F. (2015). Spectral unmixing of urban Landsat imagery by means of neural networks. In Urban Remote Sensing Event (JURSE), 2015 Joint (pp. 1–4).
- Mitraka, Z., Del Frate, F., Chrysoulakis, N., Gastellu-Etchegorry, J.-P., & Frate, F. Del. (2015). Exploiting Earth Observation data products for mapping Local Climate Zones. In Urban Remote Sensing Event (JURSE), 2015 Joint (pp. 1–4).
- Foumelis, M., Mitraka, Z., Cuccu, R., Desnos, Y., & Engdahl, M. (2015). Moving from Temporal Coherence to Decorrelation Time of Interferometric Measurements Exploiting ESA's SAR Archive. In Fringe 2015 Workshop, Frascati, Italy, 23-27 March.
- Mitraka, Z., Gastellu-Etchegorry, J.-P., Chrysoulakis, N., & Cartalis, C. (2014). Remote sensing techniques to assist the analysis of urban microclimate. In: Third International Conference on Countermeasures to Urban Heat Island, October 13-15, Venice, Italy (pp. 754–765).
- Mitraka, Z., & Chrysoulakis, N. (2014). Advanced satellite image fusion techniques for estimating high resolution Land Surface Temperature time series. In 12th Conference on Meteorology – Climatology and Atmospheric Physics, Heraklion, Greece, 28 – 31 May (Vol. 2, pp. 267–271).
- Doxani, G., Mitraka, Z., Gascon, F., Goryl, P., & Bojkov, B. (2014). An Unmixing-Based Fusion Model for Blending Multisensor and Multiresolution Imagery. In Sentinel-2 for Science Workshop, Frascati, Italy, 20-22 May 2014 (p. 124).
- Taravat, A., Mitraka, Z., Orlando, A., Frate, F. Del, & Penalver, M. (2014). National Land Cover Mapping using High Resolution Optical Imagery: a Step Ahead Towards Automatic Classification. In Sentinel-2 for Science Workshop, Frascati, Italy, 20-22 May 2014 (p. 128).
- Mitraka, Z., Lazzarini, M., Doxani, G., Frate, F. Del, & Ghedira, H. (2014). High spatial resolution Land Surface Temperature estimation over urban areas with uncertainty indices. In EGU General Assembly, Vienna, Austria, 7-12 April (Vol. 16, p. 14937).
- Mitraka, Z., Lazzarini, M., Doxani, G., Frate, F. Del, & Ghedira, H. (2014). Uncertainty indices of high spatial resolution Land Surface Temperature estimates over urban areas. In Land Product Validation and Evolution Workshop, Frascati, Italy, 28-30 January.
- Doxani, G., Mitraka, Z., Gascon, F., Goryl, P., & Bojkov, B. (2013). Spatial unmixing towards multisensor and multiresolution image fusion. In ESA Living Planet Symposium, Edinburgh, United Kingdom, 9 - 13 September.
- Lazzarini, M., Mitraka, Z., Berger, M. and Ghedira, H. (2013). Temporal analysis of emissivity values in urban areas from airborne hyperspectral thermal sensors. Geophysical Research Abstracts, Vol. 15, EGU2013-12518-1, 2013, EGU General Assembly 2013
- Sobrino, A., Jiménez-Muñoz, J.C., Brockmann, C., Ruescas, A., Danne, O., North, P., Heckel, A., Davies, W., Berger, M., Merchant, C., Mitraka, Z. and Sòria, G. (2012). Land Surface Temperature retrieval from

Sentinel 2 and 3 missions. Proceedings of Sentinel-3 OLCI/SLSTR and MERIS/(A)ATSR workshop, Frascati, Italy (15-19 October) <http://www.sen3symposium.org/>

Mitraka, Z., Berger, M., Ruescas, A., Sobrino, J.A., Jiménez-Muñoz, J.C., Brockmann, C. and Chrysoulakis, N. (2012). Estimation of Land Surface Emissivity and Temperature based on Spatial-Spectral Unmixing analysis. Proceedings of Sentinel-3 OLCI/SLSTR and MERIS/(A)ATSR workshop, Frascati, Italy (15-19 October) <http://www.sen3symposium.org/>

Diamantakis M., Mitraka, Z., Chrysoulakis, N. 2011. A Spatial Decision Support System for Sustainable Urban Planning. Proceedings, 7th Hellas G.I.s Conference, Athens, Greece (17-18 May)

Mitraka, Z., & Berger, M. (2012). Land surface emissivity estimation from synergistic use of Sentinel-2 and Sentinel-3 data based on spatial-spectral unmixing techniques. In European Space Agency, (Special Publication) ESA SP (Vol. 707 SP). Proceedings of Sentinel-2 Preparatory Symposium, Frascati, Italy (23-27 April) <http://www.s2symposium.org/>

Petropoulos, G., Partsinevelos, P. and Mitraka, Z., 2012. Exploitation of multi-temporal Earth Observation imagery for monitoring land cover change in mining sites, European Geosciences Union (EGU) General Assembly 2012, Vienna, Austria (22 – 27 April)

Chrysoulakis, N., Mitraka, Z., Diamantakis, E., Gonzales, A., Castro, E.A., San José, R. and Blečić, I., 2010. Accounting for urban metabolism in urban planning: The case of BRIDGE, 10th International Conference on Design & Decision Support Systems in Architecture and Urban Planning 19 - 22 July 2010 - The Netherlands

Mitraka, Z., Chrysoulakis, N. and Lipakis, M., 2008. Application of inductive learning algorithms for shoreline estimation using satellite records. Proceedings, 5th Hellas G.I.s Conference, Athens, Greece (4 – 5 December)

Mitraka, Z., Chrysoulakis, Z. and Kamarianakis, Y., 2008. Estimation of spatio-temporal distribution of precipitable water with the use of satellite and radiosonde data. Proceedings, 9th Conference on Meteorology – Climatology and Atmospheric Physics, Thessaloniki, Greece (28 – 31 May)