



SAPIENZA
UNIVERSITÀ DI ROMA



ΧΑΡΟΚΟΠΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ
HAROKOPIO UNIVERSITY

“OVERVIEW OF SAR INTERFEROMETRY APPLICATIONS” & “SENTINEL SUSTAINABLE DATA AND SNAP S/W”

GIOVEDÌ 10 MAGGIO 2018

ALLE ORE 11:00 – 12:00

Facoltà di Ingegneria, Aula 5, Roma.



Issaak Parcharidis, Earth Observation Applications, Assoc.
Professor, *Dep. of Geography, Harokopio University, Athens*

Nel seminario tenuto dal Prof. Parcharidis vengono discussi principi di acquisizione, le tecniche utilizzate e le potenzialità del remote sensing, in particolare della tecnica InSAR e DInSAR, nell'ambito del telerilevamento di fenomeni naturali a scala regionale e locale come: Terremoti; Subsidenza; frane ed inondazioni.

SHORT CURRICULUM VITAE del Prof. ISSAAK PARCHARIDIS

Harokopio University of Athens, Dep. of Geography

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The basic objective of his research concerns the use of Space Earth Observation data in the estimation of natural hazards and disasters management. Particularly last years the research interest is focus on:

- the advanced space techniques of SAR Interferometry aiming the detection, mapping and monitoring of ground deformation in urban and rural environment due to natural or anthropogenic causes.*
- high resolution satellite images for emergency plans development*

2001-2003 Member of the United Nations Action Team n. 7 (Committee on the Peaceful Uses of Outer Space) aiming the development of a global management system for disasters management, based on space techniques.

2010 Short visit fellowship from CNR (Rome)

2001-2004 Member of the administrative board of the Earthquake Planning and Protection Organization of Greece

2016 Invited professore at ENS/departement of geosciences

2017 Visiting Professor at European Space agency/ESRIN

Publications

- Chen, F., Wu, Y., Zhang, Y., **Parcharidis, I.**, Ma, P., Xiao, R., Xu, J., Zhou, W., Tang, P. & Fomelis, M., (2017). Surface motion and structural instability monitoring of Ming Dynasty City Walls by two-step Tomo-PSInSAR approach in Nanjing City, China. *Remote Sensing*, 9 (4), 371.
- Ganas A., Elias E., Bozionelos G., Papathanassiou G., Avallone A., Papastergios A., Valkaniotis S., **Parcharidis I.**, Briole P., (2016), Co-seismic deformation, field observations and seismic fault of the 17 November 2015 $M = 6.5$, Lefkada Island, Greece earthquake, *Tectonophysics*, doi: 10.1016/j.tecto.2016.08.012
- Arapostathis S., **Parcharidis I.**, Stefanakis E., Drakatos G. and Kalogeras I. (2016) A Method for Developing Seismic Intensity Maps from Twitter Data. *Journal of Civil Engineering and Architecture*, 10, 839-852.
- Neokosmidis, S., Elias, P., **Parcharidis, I.**, & Briole, P. (2016). Deformation estimation of an earth dam and its relation with local earthquakes, by exploiting multi-temporal synthetic aperture radar interferometry: Mornos dam case (central Greece). *Journal of Applied Remote Sensing*, 10(2) doi:10.1117/1.JRS.10.026010.
- Briole, P., Elias, P., **Parcharidis, I.**, Bignami, C., Benekos, G., Samsonov, S., Kyriakopoulos, C., Stramondo, S., Chamot-Rooke, N., Drakatos, M.L. & Drakatos, G., (2015). The seismic sequence of January-February 2014 at Cephalonia Island (Greece): constraints from SAR interferometry and GPS, *Geophysical Journal International.*, 203, 1528-1540
- Benekos, G., Derdelakos, K., Bountzouklis, C., Kourkouli, P., & **Parcharidis, I.** (2015). Surface displacements of the 2014 Cephalonia (Greece) earthquake using high resolution SAR interferometry. *Earth Science Informatics*, 8(2), 309-315.

- **Parcharidis, I., Foumelis, M., Benekos, G., Kourkouli, P., Stamatopoulos, C., & Stramondo, S. (2015).** Time series synthetic aperture radar interferometry over the multispan cable-stayed Rio-Antirio Bridge (central Greece): Achievements and constraints. *Journal of Applied Remote Sensing*, 9(1) doi:10.1117/1.JRS.9.096082.
- Foumelis, M., Trasatti, E., Papageorgiou, E., Stramondo, S. & **Parcharidis, I., (2013).** Monitoring Santorini volcano (Greece) breathing from space, *Geophysical Journal International* , doi: 10.1093/gji/ggs135
- Papageorgiou, E., Foumelis M., **Parcharidis I., (2012).** Long-and-short term deformation monitoring of Santorini Volcano: Unrest evidence by DInSAR analysis. *Applied Earth Observations and Remote Sensing*. Doi10.1109/JSTARS.2012.2198871
- Seleem, T.A., **Parcharidis, I., Foumelis, M. & Kourkouli, P., 2011.** Detection of ground deformation over Sharm El-Sheikh – Ras Nasrani coastal zone, South Sinai (Egypt), by time series SAR interferometry. *Journal of African Earth Sciences* 59, 373-383.
- Choussianitis K., Sakkas V., **Parcharidis I., Vassilopoulou S., Lagios E., 2011.** Surface deformation of Zakynthos island deduced from DGPS measurements and Differential SAR Interferometry. *Hellenic Journal of Geosciences*.
- Papanikolaou, I.D., Foumelis, M., **Parcharidis, I., Lekkas, E.L. & Fountoulis, I.G., 2010.** Deformation pattern of the 6 and 7 of April 2009, Mw=6.3 and Mw=5.6 earthquakes in L' Aquila (Central Italy) revealed by ground and space based observations. *Natural Hazards and Earth System Sciences* 10, 73-87.
- **Parcharidis I., Foumelis M., Kourkouli P., 2010.** Slope instability monitoring by space-borne SAR interferometry: preliminary results from Panachaiko Mt. (Western Greece). *Bulletin of the Geological Society of Greece*, no 3, p. 1301-1311

- **Parcharidis I., Pavlopoulos K., Poscolieri M., Kourkouli P., 2009.** *Using time series of satellite earth's observation data to determine geomorphological and paleogeographical changes at the southeastern coastal areas of Gokceada (Imvros) island (Turkey). Z. Geomorph. N.F. journal, 53 (1), 139-149.*