

# Rosa Lasaponara Curriculum Vitae

Research Director at CNR-IMAA

## ROSA LASAPONARA CV

H Index 35 (Scopus),  
43 (google scholar)

<https://scholar.google.it/citations?user=h-s87zUAAAAJ&hl=it>



VQR Evaluation 2011-2014 –excellent-

VQR Evaluation 2015-2019- excellent-

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## **Prof. Dott. Ing. Rosa Lasaponara -Research Director at CNR-**

**Research** activities: change detection, land degradation, landscape analysis, urban sprawl, natural/anthropogenic risk estimation based on Earth Observation (EO) from satellite, aerial and ground along with in situ analyses conducted in 4 continents Europe, Africa, Asia and South America. Research Director of International **joint laboratories** established **in Asia (CNR-CAS Chinese Academy of Science), South America (CNR-CONAE-Argentine Space Agency) and Egypt (NARSS Egyptian space Agency).**



- |               |   |
|---------------|---|
| 2019- October | Research Director in Earth Observation at CNR                         |
| 2019 -2010    | Senior Researcher (Environment) and Researcher (2009-2001) at CNR     |
| 2010-present  | Aggregate professor for the Microwave teaching at UNIBAS              |
| 2009 -present | Scientific Director of the ARGON LAB. and research group, CNR-IMAA    |
| 2008 -present | Scientific Director of Remote sensing for forest fire Lab at CNR-IMAA |

### **INTERNATIONAL COMMITTEMENTS**

#### **2020-PRESENT**

**Member of board of Directors** ERATOSTHENES Centre of Excellence Cyprus- [University of Technology https://eratosthenes.org.cy/board-of-directors/](https://eratosthenes.org.cy/board-of-directors/)

#### **2019-PRESENT**

**Research Director** of the International Centre of Excellence (ICoE Potenza) (<http://www.unesco-hist.org/index.php?r=en/article/info&id=1522>)

#### **2015-2018**

**Research Director** of the Joint laboratory CNR-CONAE (Italy -Argentine PGR n. **PGR00189**)  
**EO for monitoring Natural and Cultural Heritage**

Background: (i) Laurea Magistrale in Electronic Engineering- Telecommunication (Thesis on Electromagnetic Compatibility In Slot And Microstrip, (ii) 1993 Master in Landscape and Environment (Poliba): Thesis GIS technology for forest fire risk estimation, (iii) 1999 Phd University of Florence in Environmental Monitoring, Thesis RS Satellite Based Technologies For forest Fire monitoring). Researcher (Assegnista di Ricerca): RS of Forest fire 1999-2001 at the University of Basilicata

Over twenty five years of experience in the field of space technology and Environmental monitoring also based on Earth Big data acquired by active (radar, LiDAR) and passive (multi and hyper-spectral) satellite, airborne (manned and unmanned), and ground sensors. My research deals with optical data and radar data processing, integration and interpretation. historical data with particular reference to satellite data for the investigation of significant geophysical parameters and extraction useful information for natural/anthropogenic risk estimation and mitigation, with particular attention to sites with high cultural, natural and environmental value.

Authored or co-author of more than 350 peer-reviewed papers (205 in JRC journals, book etc). She is editor NHESS and has been associated editor of Sensor. She is member of editorial board of several international journals and has coordinated for prestigious international journals (Remote Sensing, JAG, Sustainability, IJRS) as guest editor numerous special issues focused on the use of remote sensing technology for risk estimation and mitigation.

**Scientific coordinator (LPI or PI) of several research projects at national and international level,** funded by the EU, ESA, ASI, CNES, CNR, DPC. She has been co-investigator in EU projects in the FP6 and FP7, and **currently is coordinator (LPI) for SER-FORFIRE ERA4CS**; PI of ATHENA twin project H2020, PI ArTeK funded by ESA (ARTES call).

### **Chief of International scientific missions**

More than 68 international scientific missions, (30 in Peru, 5 in Bolivia, 5 in Argentina, 10 in China, 3 in Tunisia, 15 in Italy), some details below:

Scientific **cooperation ITACA-** Mission (2007-on going) Peru (Machu Picchu, Nasca, Lima), Bolivia (Tiwanaku) , Argentina (La Cueva de los manos, Iguazu,)

**Italian-Chinese scientific Mission** in Henan (2012-on going) In the context of the Bilateral Project between Italian CNR and Chinese Academy of Sciences (CAS) some scientific missions have been conducted from 2013 to 2015 in the Henan and Anhui provinces

DBAR Field work activities (2017-on going) In the context of the DBAR Earth Big data for natural and Cultural

## Invited lecturer

More than 50 contributions in national and international research Centre, and Universities (among the others: ESA, ASI, DLR, CONAE, INPE, UNESCO, NARSS, Chinese Academy of Science, EGU, Università di Roma – Sapienza, Cyprus University of Technology, Nicosia, University Of Lausanne, University of Ghent (belgium), Geoscience- Canberra (Australia), IALE (International Association Landscape Ecology) Bariloche (Argentina), Università Della Punta S Loius (Argentina), University of Bern (Switzerland), University of Lousanne (Switzerland), Potsdam, Germany- Institute For Climate Impact Research DAMES, Spanish National Research Council- Universitat Pompeu Fabra Barcellona (Spain), Technical University- of Istanbul (Turkey), Institute Of Prehistory, Adam Mickiewicz University- Poznan – Poland, University of Zonguldak Turchia, Public Research Centre Henri Tudor University Lussemburgo, etc.

## Supervisor of PhD and MsC Thesys

## Divuligation activities

- A) **Scientific Exhibitions** in Italy, Peru, Polonia, (2013-2021), “Sensing the Past” August-September 2013 Galleria agostiniana Rome, in the framework of the European Space Expo ([https://www.imaacnr.it/images/imaacnews\\_eventi/2013/08\\_agosto/mostra.pdf](https://www.imaacnr.it/images/imaacnews_eventi/2013/08_agosto/mostra.pdf)). Esposizione itinerante “Mirada de los Dioses. Observación espacial del patrimonio andino”. Museo Archeologico nazionale Lima Peru [https://iiclina.esteri.it/iic\\_lima/it/gli\\_eventi/calendario/2017/05/esposizione-itinerante-mirada-de.html](https://iiclina.esteri.it/iic_lima/it/gli_eventi/calendario/2017/05/esposizione-itinerante-mirada-de.html)
- B) **Media interviews** (BCC, Wired, National geographic, National and international press as repubblica, la stampa, il País, la Prensa, le Figaro, Leonardo TG, etc. ( <https://www.bbc.com/future/article/20160408-the-ancient-peruvian-mystery-solved-from-space>), Repubblica <https://duckduckgo.com/?q=rosa+lasaponara&t=chromentp&iax=videos&jia=videos&iaj=m6rXfAQEZtY>
- C) **Divuligation Conferences** as, for example, : " La scienza del cnr per il sistema nazionale di protezione civile: l'esperienza 2008-2019 del monitoraggio operativo degli incendi in Basilicata ( <http://www.cnrweb.tv/la-scienza-del-cnr-per-il-sistema-nazionale-di-protezione-civile/>)  
--"A Space View Of Silk Road" Festival Della Scienza Genova 28 Ottobre, 2016 (<http://festival2016.festivalscienza.it/site/home/programma-2016/giorno-per-giorno/28-ottobre/tracce-del-tempo-dalluniverso.html>).  
--"Earth Big Data integration for cultural heritage" Eurisy Space4Culture <https://www.youtube.com/watch?v=3O4q78f0A6g>  
--"Remote Sensing for Cultural Heritage: from Documentation to Risk Estimation and Preservation" in Copernicus for Cultural Heritage Workshop (<https://workshop.copernicus.eu/cultural-heritage>)  
[https://workshop.copernicus.eu/sites/default/files/content/attachments/ajax/lasaponara\\_-\\_carsel.pdf](https://workshop.copernicus.eu/sites/default/files/content/attachments/ajax/lasaponara_-_carsel.pdf)
- D) **Video productions** as for example: SPACEWATCHING OUR PAST <https://www.effnove.it/project/spacewatching-cnr-lidar-remote-sensing/?fbclid=IwAR2P1hBOoRd3ztI8IB6Z9jdWa3eBP5S5uX8JLjd47cr8CzrS2pURECFCO4kM>

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## Key skills

**Social competence:** high ability to work in teams, leadership qualities.

**Communicative Competence:** high ability to lead and participate in discussions, high capability to adjust communication to a given audience.

**Personal attributes:** independent, assertive, creative, high capable to assume responsibilities, and a great disposition to achieve new objectives.

**Professional experience: at the CNR-IMAA** Chief of three different research lines: 1) Remote sensing & risk monitoring for Natural and Cultural heritage, 2) Remote sensing of forest fires, 3) Statistical Analysis of satellite and ancillary time series for land degradation;

**ROSA LASAPONARA CV**

**Research Director** at CNR



PhD, Rosa Lasaponara **Research Director of the** Italian National Council Research- at IMAA.

**Chief of Laboratories and Research groups at the CNR-IMAA**

Since 2008 (n. protocollo 0001774) she has leaded and currently leads the “Satellite and Airborne Remote Sensing Laboratory For Forest Fire, (see,[https://www.ima.cnr.it/images/ima/documenti/2019-06-06\\_FireSat\\_Brochure.pdf](https://www.ima.cnr.it/images/ima/documenti/2019-06-06_FireSat_Brochure.pdf)).

In 2009 she founded and currently leads the ARGON Lab and research group (one of the 7 research groups of the IMAA- see <https://www.ima.cnr.it/tematiche-di-ricerca>).

**CNR commitments:**

**2021-2017**

Lead PI for SERV-FORFIRE project ERA4CS managed for the CNR-DTA, [http://jpi-climate.eu/nl/25223459-SERV\\_FORFIRE.html](http://jpi-climate.eu/nl/25223459-SERV_FORFIRE.html)

**2016 - 2007**

L PI for the CNR Commitment (Responsabile della commessa-) - “Integrated Earth Observation technologies for archaeology and landscape since (PC.P01.001.003)

**2014- 2011**

L PI for the CNR Commitment “Remote sensing based monitoring of natural and human induced risks for Cultural heritage”

**2014- 2009**

LPI “Change detection and Palaeo-environmental transformations induced by human activities using remote and in situ data analysis” CNR (RSTL.055.010)

**2007-present**

Scientific Responsible for the Operational Monitoring of Forest fire for the Department of the Protezione Civile of the Basilicata Region (<http://www.protezionecivilebasilicata.it/protcivbas/home.jsp>)

## **INTERNATIONAL COMMITTEMENTS**

### **2019-PRESENT**

**Research Director** of the International Centre of Excellence (ICoE Potenza) (<http://www.unesco-hist.org/index.php?r=en/article/info&id=1522>) which has 20 Sino-Italian researchers from both CNR and CAS.

### **2015-2018**

**Research Director** of the International Joint laboratory CNR-CONAE (Italy -Argentina PGR n. PGR00189) EO for monitoring Natural and Cultural Heritage (15 researchers)

### **2012-PRESENT**

**Research Director** of the International Joint laboratory CNR-Chinese Academy of Science (Italy -China) PGR n.00570 (22 researchers). **In charge of the management of the BIG data infrastructure of DBAR** at CAS set up to (i) improve regional Earth observation data cooperation (ii) develop heritage geospatial database and online service system, (iii) assess, develop and improve SDGs indicators.

### **Chief of International scientific missions**

More than 63 international scientific missions, for 35 of them Responsible (30 in Peru, 5 in Bolivia, 5 in Argentina, 8 in China, 3 in Tunisia, 2 in Srilanka, 1 in Pakistan, 9 in Italy), some details below:

#### **Scientific cooperation**

##### **ITACA- Mission (2007-on going)**

Since 2007, the ITACA Mission has been undertaking explorations in Peru, with the aim of supporting the risk estimation of several historical and archaeological studies of pre-Columbian sites, through the use of archaeo-geophysics, diagnostics and remote sensing. Twenty four missions have been carried out in Machu Picchu, Cusco, Nazca, Pachacamac Ventarrón. In particular, the ceremonial city of Cahuachi and the basin of the Rio Nazca, including the Pampa of geoglyphs, represented the main area of investigation. Over the years, the mission's aims and activities have expanded the spectrum of its interests, to include landscape archaeology, the study of the relationship between human presence and dynamics of environmental change, climate change induced risk and monitoring, diagnostics for heritage conservation

##### **Italian-Chinese scientific Mission in Henan (2012-on going)**

In the context of the Bilateral Project between Italian CNR and Chinese Academy of Sciences (CAS) some scientific missions have been conducted from 2013 to 2015 in the Henan and Anhui provinces

DBAR Field work activities (2017-on going) In the context of the DBAR Earth Big data for natural and Cultural heritage some scientific missions for archaeological purposes have been conducted from 2017 in Tunisia, Italy, Sry lanka,

## **Chair of International Conferences co-organized with ESA, NASA, ASI, DLR, NARSS CONAE, (selected events)**

**2019**

**“12th EARSeL Forest Fires SIG Workshop Remote Sensing of forest fire data, science and operational applications “ 3-5 October 2019 Rome CNR <https://cnrfire2019.eu/> international conference and training organized in cooperation with ESA and Nasa**

**2019**

**in charge to organize the annual Meeting of the international working group GOF GOLD Fire (<http://gofc-fire.umd.edu/>) 1-2 October 2019 Rome, CNR piazza Aldo Moro**

**2018**

**COSMO SkyMed for Cultural Heritage 24-25 November 2018, Mena House Hotel Greater Cairo - Egypt (<https://www.innovitalia.net/wp-content/uploads/2018/11/Workshop-proceedings.pdf>)**

**2017**

**Chair of Workshop “Remote sensing for archaeology beyond Europe” co-organized by CNR-German Space Agency (DLR), CUT-University of Cyprus**

**2016**

**Chair of the workshop Selper “Remote sensing for Natural and Cultural Heritage” Iguazu Argentina November 2016 co-organized by CNR- CONAE and ESA**

**2015**

**Chair of Conference Advances In Remote Sensing For Cultural Heritage: From Site Detection, To Documentation And Risk Monitoring 12-13 November 2015 ESA-ESRIN Frascati co-organized by CNR- and ESA (<http://esaconferencebureau.com/2015-events/15m38/introduction>)**

**2013**

**Chair of the 33rd EARSEL Symposium and 5 accompanying workshops MATERA 2013 3-6 June 2013 - <http://www.earsel.org/symposia/2013-symposium-Matera/>**

**2012**

**University of Leuven, Belgium 19-22 September 2012. Chair of the 3th EARSEL Conference on Remote Sensing for Cultural and Natural Heritage. Co-organized by CNR- and University of Leuven and the ESA sponsorship**

**2011**

**Poznan (Poland), 2012. Chair of the II EARSEL Workshop on Cultural and Natural Heritage in conjunction with the AARG 30d Symposium 2013) (<http://archo.amu.edu.pl/aarg-earsel/>) Co-organized by CNR- and Poznan University**



2009

Chair VII EARSeL Workshop “Advances in Remote Sensing for forest fire” Matera, on 1-3 September 2009 international conference and training organized in cooperation with ESA

2008

Chair of the first EARSeL Workshop “Advances in Remote Sensing for Cultural heritage”  
<http://www.aracneeditrice.it/pdf/9788854820302.pdf>

2008

- Cardiff, 15-19 september 2008. Spie Europe Remote Sensing Symposium. Convener of session on “Remote sensing for archaeology, cultural and natural heritage”, within the Conference “Remote Sensing for Environmental Monitoring, GIS Applications, and Geology”.

2007

- Firenze, 17-20 september 2007. Spie Europe Remote Sensing Symposium. Convener of session on “Remote sensing for archaeology, cultural and natural heritage”, within the Conference “Remote Sensing for Environmental Monitoring, GIS Applications, and Geology”.

2018-2006

Covener at the EGU General Assembly **2018-2006** : session NH "Forest fire " at EGU 2007-2009 NP4“*satellite time series analysis*”, (at EGU 2009-2015); Big Data session at EGU (2018-2019)

#### GUEST EDITOR

She is/has been Guest Editor of special issues of international journals: *Ecological Modelling* (2010, vol. 221; 9), *International Journal of remote Sensing* (2010, vol.33(15)), *International Journal of Applied Earth Observation and Geoinformation* (2013, vol. 20), *International Journal of Applied Earth Observation and Geoinformation* (2014, vol. 26). Special issue coordinated as guest editor for Remote Sensing (2018, 2017, 2016, 2019, 2020), Sustainability (2019-2010)

Associate editor of NHESS 2019-2009

## Background, Research and outputs

Background: (i) Laurea magistrale in Electronic engineering- Telecommunication (Thesis on Electromagnetic Compatibility In Slot and Microstrip, (ii) 1993 Master in Landscape and Environment (Poliba): Thesys GIS technology for forest fire risk estimation, (iii) 1999 Phd University of Florence in Environmental Monitoring, Thesis RS Satellite Based Technologies For forest Fire monitoring). Researcher (Assegnista di Ricerca): RS of Forest fire 1999-2001 at the University of Basilicata

She is adjunct professor of Microwave (since 2010 to present) at the university of Basilicata, where she was member (2005-2012) of the scientific committee of the PhD Environmental Engineering and currently is member of the committee of the PhD “Cities Landscapes: Architecture, Archaeology, Cultural Heritage, History”.

She is an international recognized expert of BIG EO data and data processing, integration and interpretation for: (i) risk monitoring and mitigation, (ii) change detection and land degradation, (iii) natural and cultural heritage, (iv) Landscape analyses, (v) Environmental Monitoring, etc. LPI or PI of more than 40 projects.

She has more than 25 years of experience in the field Earth Observation from satellite/airborne/ground based on passive (optical, multi-hyper-spectral data) and active (radar, LIDAR) sensors. Her main research interests are focused on modeling, data processing, integration, and interpretation of big Earth Observation for natural/anthropogenic risk estimation, monitoring and mitigation, with particular reference to risk management and post events damage estimation (fire monitoring and post fire monitoring), Landscape analysis and environmental degradation (urban sprawl, desertification, pollution), palaeo-environmental investigations and archaeological studies.

She authored or co-authored of more than 350 peer-reviewed papers (190 in JRC journals, book etc), editor of NHESS, academic Editor of RS and guest editor for several international journals Remote Sensing (2020, 2019, 2017, 2013), IJRS, JAG, Ecological Modeling, Journal of Archaeological science, Archaeological Prospection, Journal of Cultural Heritage, Sensor, Sustainability.

She has been and currently is the scientific coordinator of several research projects at national and international level (more than 45 projects since 2001, funded by the EU (European Union, H2020) , ESA (European Space Agency), ASI (Italian space agency), MAECI (ministero degli affari esteri e cooperazione Internazionale, progetti di grande rilevanza), CNR, DPC (department of the protezione civile). She currently is the LPI of SER FOR FIRE ERA4CS EU project Integrated services and approaches for Assessing effects of climate change and extreme events for fire and post fire risk prevention ([http://www.jpi-climate.eu/nl/25223459-SERV\\_FORFIRE.html](http://www.jpi-climate.eu/nl/25223459-SERV_FORFIRE.html)). PI for IMAA of ATHENA twin project H2020 and for ArTeK funded by ESA in cooperation with ASI.

## **Current scientific Leadership in Europe**

In cooperation with and supported by UNESCO (<http://www.ibam.cnr.it/earsel/>), she set up and currently chairs (2007-2022) the international -special interest working group " Remote Sensing for Documentation, Monitoring and Preservation of Natural and Cultural Heritage" of the European Association of Remote Sensing Laboratories (EARSeL).

Chair of International conferences organized (2008, 2009, 2013, 2015, 2019,etc) also in cooperation with ESA and NASA, and with associate training courses for PhD students as, for example, the 12th EARSeL Forest Fires SIG Workshop | 3-5 October 2019 | CNR - Rome, Italy, and associate training in ESA (<https://cnrfire2019.eu/>)

## **Current scientific Leadership in Asia, Africa and Middle east.**

Member (2015 -2018, and 2019-2021) of governing board (i.e. CdA-Consiglio di Amministrazione) of the Chinese Academy of Science – Hist cat 2 Unesco Center on Geoparks.

2017 to, she has co-chaired the Digital Belt and Road (<http://www.unesco-hist.org/uploads/2017/26.pdf>) international working group (see, for example; [http://www.bulletin.cas.cn/publish\\_article/2017/Z1/2017Z119.htm](http://www.bulletin.cas.cn/publish_article/2017/Z1/2017Z119.htm)), focused on the use of Earth Big data to assess, develop and improve Sustainable Development Goals (Agenda 2030) SDGs indicators

Since 2019 she has founded and led the joint Sino-Italian International Centre of Excellence (ICoE Potenza) (<http://www.unesco-hist.org/index.php?r=en/article/info&id=1522>) which has around 20 Sino-Italian researchers from both CNR and CAS. Scientific Responsible of 12 field campaigns and in situ data acquisitions from 2012-to present in China (9), Tunisia (1), Iran (1), Pakistan (1).

**In charge of the management of the BIG data infrastructure of DBAR** set up to (i) improve regional Earth observation data cooperation (ii) develop heritage geospatial database and online service system, (iii) assess, develop and improve Heritage related SDGs indicators.

Visiting professor at the Chinese Academy of Science CAS (RADI) – Beijing, PIF Grants (2015-2016).

Organization of numerous international conferences and training for PhD students and young researchers, as for example:

## **Current scientific Leadership in Peru and South America**

2019 Visiting professor at INPE -Brazilian Space Agency - (PrInt grant project, capes grant 2019)

Since 2007, Responsible of the Research activities in Peru .

In 2015 **she set up the joint IMAA-IBAM CNR seat and laboratory in Nasca Peru at the Museo Antonini to support the systematic research activities** conducted in Peru (see a brief summary in the book (the Ancient Nasca World, <https://www.springer.com/gp/book/9783319470504>).

Since 2009, Responsible for the IMAA of the Research activities in Tiwanaku Bolivia.

2007 -to present Responsible of 41 field campaigns and in situ data acquisitions from 2007-to present in Argentina (6), Brazil (1), Bolivia (4), Peru (30)

Organization of numerous international conferences and training for PhD students and young researchers, as for example

**2016 Workshop Selper “Remote sensing for Natural and Cultural Heritage” Iguazu Argentina November 2016 co-organized by CNR- CONAE and ESA**

## **INTERNATIONAL POSITIONS**

**She has held and currently holds several international positions including, among the others:**

- Project Reviewer for international institutions (as ANR, Belspo, EU (H2020), (2020-2018)
- Member of the international working group GWIS/GOFC (since 2019)
- Visiting professor at INPE Brazilian Space Agency (2019)
- Visiting professor at the Chinese Academy of Science CAS (RADI) – Beijing, (2015-2016) PIF Grants
- Visiting professor at CONAE Argentine Space Agency (2014-2015)
- Visiting professor at the university of Comahue Bariloche Argentine (2011)
- Science officer for EGU Natural Hazard Division (on fire monitoring (2007 -2014)
- Science Officer for EGU (2014-2017) for OSP Outstanding Poster Award,
- Member of the Plinius Medal for EGU- Natural Hazard –Division (2009-2014).
- Member of EARSel Bureau (2009-2014)
- EARSel -General Secretary 2012-2013
- EARSel –Treasurer, 2010-2012 (management of 300K euro per year)
- Editor of EARSel News Letter, 2009- 2012,

### **Invited speaker/chairman/convener and/or member of scientific program committee**

More than 60 contributions) (EGU, EARSeL, SPIE, IGARSS, Digital Earth, DBAR, ICCSA, EUGROW, UNESCO).

### **Invited lecturer**

More than 50 contributions in national and international research Centre, and Universities (among the others: ESA, ASI, DLR, CONAE, INPE, UNESCO, NARSS, Chinese Academy of Science, EGU, Università di Roma – Sapienza, Cyprus University of Technology, Nicosia, University Of Lausanne, University of Ghent (belgium), Geoscience- Canberra (Australia), IALE (International Association Landscape Ecology) Bariloche (Argentina), Universita Della Punta S Loius (Argentina), University of Bern (Swizland), University of Lousanne (Swizland), Potsdam, Germany- Institute For Climate Impact Research DAMES, Spanish National Research Council- Universitat Pompeu Fabra Barcellona (Spain), Technical University- of Istambul (Turkey), Institute Of Prehistory, Adam Mickiewicz University- Poznan – Poland, University of Zonguldak Turchia, Public Research Centre Henri Tudor University Lussemburgo, etc.

### **Supervisor of PhD and MsC Thesys**

- Supervisor of PhD Thesys (**15 PhD students and 5 MsC students**), among them 7 are today researchers at the CNR, CAS, at the NARSS)
- Member of external evaluation committee of PhD Thesis (**18 Phd evaluations** in UK, Belgium, Greece, Spain, Argentina, Brazil, China, Italy)

## Visiting scientists hosted

More than 20 scientists hosted from 2005 to 2020 with official grants, coming from EU - Greece, Spain, Germany-Poland, from China, Iran, Tunisia, Egypt, Argentina, Peru, Bolivia, Brazil) some examples:

2019 Luo Lei CAS

2018 Fulog Chen prof at the Chinese Academy of Science

2017 Pan Pan prof at the Henan Chinese Academy of Science

2016

Javier Fernández Calleja associate prof Università di Oviedo Spain

Gisella Cassiodoro prof at the University of Buenos Aires Argentina

Francisco Guillion prof University of Buenos Aires Argentina

2015

2015 Xiao Lian State Key Laboratory of Fire Science, University of Science and Technology of China, Jinzhai 96, Hefei, Anhui, 230027, P.R. China

Giorgina Fabron CONICETY Argentina

Alessandra Salonicco University Grecia

2013

Giorgina Fabron CONICET Argentina

2015-2003

Students from the Cordoba CONAE-center -Master on Remote Sensing -Jointly organized by CONAE and ASI

## Awards

1. Leadership Awards from Chinese Academy of Science CAS- December 2019 for the distinguished research achievements
2. Leadership Awards from CAS –RADI December 2017 for the distinguished research achievements in DBAR research activities
3. Best Presentation Digital Earth conference 2016 Beijing (8 July 2016)
4. Leadership Awards from ICCSA 2016 (July 2016)
5. Leadership award for editorial achievement by Remote Sensing journal January 2015
6. Leadership Awards from EARSEL June 2014
7. Awards BEST Innovation for 2014 year from Focus May 2014 (<http://www.cnrweb.tv/firesat-linnovazione-giusta-per-il-nostro-pianeta/>)
8. Best paper Awards RSCy 2013 (First International Conference on Remote Sensing and Geo-information of Environment)
9. Leadership Awards from BELSPO June 2012
10. Best paper Awards June 2009 CNR- highlights CNR 2008/2009 ([http://www.cnr.it/documenti/Highlights2008\\_2009.pdf](http://www.cnr.it/documenti/Highlights2008_2009.pdf))
11. Paper of special interest “Multi-temporal analysis and archaeo-geophysical methods to monitor and face the archaeological looting: the experience in Nasca (Southern, Peru)” session “Satellite time series analysis”, EGU Assembly Wien 4 Apr. 2011.
12. Paper of special interest “Archaeo-geophysics in Peru and in Bolivia: the contribution of Italian CNR with ITACA mission (2007-10).”, EGU Assembly Wien 5 April. 2011
13. CNR- paper highlights CNR 2008
14. 2007 Rotary Award “Outstanding Researcher”, assigned by Rotary Foundation

## Divuligation

(Third Mission) systematically involved in divulgation activities, as among the others:

A) **Scientific Exhibitions** in Italy, Peru, Polonia, (2013-2021), as an example:

- 1) "Sensing the Past" August-September 2013 Galleria agostiniana Rome, in the framework of the European Space Expo  
([https://www.imaa.cnr.it/images/imaa/news\\_eventi/2013/08\\_agosto/mostra.pdf](https://www.imaa.cnr.it/images/imaa/news_eventi/2013/08_agosto/mostra.pdf))
- 2) Esposizione itinerante "Mirada de los Dioses. Observación espacial del patrimonio andino". Museo Archeologico nazionale Lima Peru  
[https://iiclima.esteri.it/iic\\_lima/it/gli\\_eventi/calendario/2017/05/esposizione-itinerante-mirada-de.html](https://iiclima.esteri.it/iic_lima/it/gli_eventi/calendario/2017/05/esposizione-itinerante-mirada-de.html)

B) **Media interviews** (BBC, Wired, National geographic, National and international press as repubblica, la stampa, il Pais, la Prensa, le Figaro, Leonardo TG, etc. ( <https://www.bbc.com/future/article/20160408-the-ancient-peruvian-mystery-solved-from-space>)

Repubblica

<https://duckduckgo.com/?q=rosa+lasaponara&t=chromentp&iax=videos&ia=videos&iai=m6rXfAQEZtY>

C) **Divulgation Conferences** as, for example, :

-- " La scienza del cnr per il sistema nazionale di protezione civile:l'esperienza 2008-2019 del monitoraggio operativo degli incendi in Basilicata ( <http://www.cnrweb.tv/la-scienza-del-cnr-per-il-sistema-nazionale-di-protezione-civile/>)

--"A Space View Of Silk Road" Festival Della Scienza Genova 28 Ottobre, 2016 (<http://festival2016.festivalscienza.it/site/home/programma-2016/giorno-per-giorno/28-ottobre/tracce-del-tempo-dalluniverso.html>).

--"Earth Big Data integration for cultural heritage" Eurisy Space4Culture  
<https://www.youtube.com/watch?v=3O4q78f0A6g>

--"Remote Sensing for Cultural Heritage: from Documentation to Risk Estimation and Preservation" in Copernicus for Cultural Heritage Workshop (<https://workshop.copernicus.eu/cultural-heritage>)  
[https://workshop.copernicus.eu/sites/default/files/content/attachments/ajax/lasaponara\\_-\\_earsel.pdf](https://workshop.copernicus.eu/sites/default/files/content/attachments/ajax/lasaponara_-_earsel.pdf)

D) **Video productions** as for example:

SPACEWATCHING OUR PAST

<https://www.effenove.it/project/spacewatching-cnr-lidar-remote-sensing/?fbclid=IwAR2P1hBOoRd3ztI8lB6Z9idWa3eBP5S5uX8JLg47cr8CzrS2pURECFCO4kM>



## Projects

She has been and currently is the scientific coordinator of several research projects at national and international level (more than 45 projects with a, funded by the EU (European Union, H2020) , ESA (European Space Agency), ASI (Italian space agency), MAECI (Ministero degli affari Esteri e della cooperazione Internazionale, progetti di grande rilevanza-PRG), CNR, DPC (department of the protezione civile).She currently is the LPI of SER FOR FIRE ERA4CS EU project Integrated services and approaches for Assessing effects of climate change and extreme events for fire and post fire risk prevention ([http://www.jpi-climate.eu/nl/25223459-SERV\\_FORFIRE.html](http://www.jpi-climate.eu/nl/25223459-SERV_FORFIRE.html)). PI for IMAA of ATHENA twin project H2020 and for ArTeK funded by ESA in cooperation with ASI.

### LPI (Lead Principal Investigator) or PI (Principal Investigator) of International Projects (highlights)

#### EU funded projects

1) **LPI SERV-FOR FIRE** Integrated Services And Approaches For Assessing Effects Of Climate Change And Extreme Events For Fire And Post Fire Risk Prevention ([http://jpi-climate.eu/nl/25223459-SERV\\_FORFIRE.html](http://jpi-climate.eu/nl/25223459-SERV_FORFIRE.html)) - ERA 4CS see detail on the (<https://servforfire-era4cs.eu/>) (2500Keuro, 500Keuro cnr quota)

2) **PI ATHENA**. "Remote Sensing Science Center for Cultural Heritage" (H2020-TWINN-2015) (<https://athena2020.eu/>)The goal of the project is to establish a "Remote Sensing Science Center for Cultural Heritage" in Cyprus. The Cyprus University of Technology (CUT) has been twinned with internationally-leading counterparts from the EU, namely the National Research Council of Italy (CNR, through IMAA and IBAM) and the German Aerospace Centre (DLR) (300Keuro cnr quota)

3) **PI GeoMOP** (2018-on going)"*Modern Geospatial Practices for Ancient Movement Praxis*" [ **H2020-MSCA-IF-2016**] - (<https://geomop.eu/>) The goal pf GoMop is to develop an innovative integrated approach between earth observation methods and archaeological prediction models in the context of studies aimed at simulating human-environment interaction with particular reference to Upper Mesopotamia in the early Bronze Age. In particular, the project aimed at the study and survey of the network of hollow ways (vie cave) of the early Bronze Age in the Khabur basin in Syria through an interdisciplinary approach based on satellite remote sensing and agent-based model methods.

4) **BEYOND FP7** Participation to Beyond Building Capacity for a Centre of Excellence for EO-based monitoring of Natural Disaster FP7-REGPOT-2012-2013-1 CNR participation as expert of remote sensing of forest fire . Member of steering committee of the project

5) **PI "ArchaeoLandscapes Europe"** (ArcLand) CNR associate partner (<http://www.arcland.eu/news/1480-5-new-partners-of-the-arcland-network>)

Main project objective Explore how aerial imagery and remote sensing is being used by archaeologists to understand our past.

6) Preview Winter Fire FP6 project- PI Scientific responsible for the CNR\_IMAA activities of the “Preview Winter Fire FP6 project : framework of EURORISK/PREVIEW “Prevention, Information and Early Warning pre-operational services to support the management of risks VI FP- Integrated project

### **Space Agencies funded project ( ESA, ASI, CNES, CONAE, NARSS)**

7)ESA **ArTeK** - Satellite enabled Services for Preservation and Valorisation of Cultural Heritage (2016-2018) aims at an efficient monitoring of the state of conservation of Cultural Heritage, the improvement of the decision-making and programmatic capacity of institutions responsible for conservation, reducing in this way maintenance costs (PI for Earth observation data)

8) Buto Project “Remote sensing for archaeological prospections in the Buto area” funded by NARSS Egypt (Egyptian Space Agency) and University of (PI)

9)ASI PI for CNR ARCHEO COSMO ASI **2013-2014** funded by the Italian Space Agency (ASI) The main objective of the research activities was to assess the potentiality and capability of COSMO data for archaeology and develop methodological models to extract useful information for archaeological site discovery ad monitoring ((involved as PI)

10)ASI **Where** World Heritage monitoring by Remote Sensing (WHERE)” funded by ASI 2012-2013 (external consultant and member of steering committee nominated by the Italian space agency. The project aimed at assessing the capability of satellite data for UNESCO site monitoring and documentation (involved as PI)

11) ASI **SoS-MT Project** “Soil Slow MoTion Monitoring by interferometry” (SoS-MT-Monitoring) funded by ASI 2012-2013. The main objective of the research activities was to assess and develop methodological models reduce the atmospheric effects on COSMO data

12) CNES Pleides for Archeology and Cultural Heritage , focused on assessing during the commissioning period the potentiality of Pleides for archaeology funded by CNES The main objective of the research activities was to assess the potentiality and capability of Pleiades data for in archaeology and develop methodological models to extract useful information for site discovery ad monitoring PI

13) ESA Project “Assessing Satellite SAR data for Landscape and archaeology” Id. 11073 cat 2 project The main objective was to assess the capability of SAR data in archaeological studies

14) Cueva del Los manos Project “Remote sensing for archaeological prospections in Patagonia” funded by CONAE (Argentine Space Agency- 2015 (PI)

15) ESA PI of Fire susceptibility estimation in the Mediterranean ecosystems by using AATSR, MODIS, VEGETATION, and AVHRR data” n 1503 ESA (European Space Agency) 2005-2007

**Joint Research Center (JRC) funded project tender projects**

16 ) FUELMAP 2008-2010, PI- CNR\_IMAA activities of the FUELMAP” Development of a European fuel map” Contract notice n 2008/S 116-153998 del 17/06/06 Tender funded by Joint Research Centre- Institute for Environment and Sustainability (JRC- IES) ISPRA (Italia)

**Funded by MAECI -Progetto di Grande rilevanza (PGR)**

**17) Principal Investigator (LPI) Progetto Italia-Argentina 2014-2016 PGR00189 finanziato dal MAECI dal titolo "Tecnologie di telerilevamento per la gestione smart dei beni culturali e naturalistici per aree pilota in Italia ed Argentina: dalla conoscenza e valorizzazione al monitoraggio dei rischi e mitigazione" 210Keuro, Ruolo svolto Lead Principal Investigator 2014-2016**

18) PI CNR-IMAA of Smart management of cultural heritage sites in Italy and China: **Earth Observation and pilot projects funded by the Ministero degli Affari Esteri --MAE PGR00570 2012-2015**. Chinese partner Chinese Academy of Science (CAS) -RADI Institute. The main purpose was the assessment of the potentiality in desert areas and use of Active SAR and passive optical data for the investigation of cultural properties along the silk road (PI)

**Funded by University of Cusco**

19) "Unveiling Inka in Cusco" Project -Geophysical prospection for archaeology, funded by Universtity of Cusco 2020-2017 (LPI).

**Funded by Kafrelsheikh University**

18) “Remote sensing for archaeological prospection in North Egypt area” co-funded by NARSS Egypt (Egyptian Space Agency) (PI)

**Funded by CNR**

19) Earth Observation Technologies for the survey, investigation and valorisation of Ancient Aqueduct systems in Peru CNR-CONCYTEC 2012-2014 n. 0031559 funded in the framework of the Cooperation CNR-CONCYTEC 2012-2014 n. 0031559. The main purposes was to develop methodologies for the detection of unknown aqueducts and the valorisation and preservation of them. Based on the integration of active and passive satellite data and geophysical prospection (Georadar, magnetic, geo-electrical survey) (involved as Lead Principal Investigator)

20) “Investigating of Landscape transformation and the impact of Human activities integrating Earth Observation and ancillary data sources” DG.RSTL.055.010 curiosity driven. The project supported the creation of the CNR –IMAA laboratory Funded by CNR 2007-2009 99.000 ca euro (involved as Lead Principal Investigator).

## **National project (LPI)**

### **2020-2019**

1. “Previsioni incendi e stima dei danni” funded by dalla Protezione civile della Regione Basilicata focused on the use of Sentinel for forest fire monitoring

Principal Investigator (PI) 50.000 euro

### **2019-2018**

2. Previsioni incendi e stima dei danni” funded by dalla Protezione civile della Regione Basilicata focused on the use of Sentinel 1 and 2 for forest fire monitoring 60.000

### **2018-2017**

3. Monitoraggio incendi da satellite: la stima del rischio di incendi all’interfaccia urbano/vegetato e simulazione dell’ estensione del fronte di fiamma “ funded by dalla Protezione civile della Regione Basilicata focused on the use of Sentinel for forest fire monitoring 100.000

### **2015-2016**

4.

“Monitoraggio incendi da satellite : la stima del rischio di incendi integrazione di dati satellitari e dati meteorologici previsti ECMWF (Cosmo model )  
Conferimento con Convenzione Protocollo 0002869. Incendi 2015

PI Funded by Protezione civile regione Basilicata 100.000 euro

### **2014**

5. FIRESAT:  
Monitoraggio incendi da satellite stima del rischio dinamico e dei rischi connessi al passaggio del fuoco

(PI) Funded by Protezione civile regione Basilicata 100.000 euro  
Conferimento con Convenzione Protocollo Inserito Protocollo 0003312 in data : 18/09/2014.

6. PI of the project “From LiDAR survey to virtual reconstruction” Basilicata Innovazione 2013-2014 FESR action

7. MITRA "Remote Sensing technologies for Natural and Cultural heritage Degradation Monitoring for preservation and valorization"2012-2014. The main objective was to assess the capability of satellite data in identification of natural and man-made hazard for natural and cultural properties and the development of ad hoc methodologies based on satellite data for risk monitoring and mitigation.

Funded by Regione Basilicata 120.000 euro

8. PI of FIRE-SAT an integrated model to monitoring in real time of forest FIRE in interface urban-forest areas and the development of ad hoc methodologies based on satellite data for the assessment of fire expansion

Funded Protezione Civile in the framework of operational monitoring of risk by 2013-

9. Projects PI of FIRE-SAT an integrated model to real time monitoring of forest FIRE Funded Protezione Civile in the framework of operational monitoring of risk using Earth Observation Technologies by 2010- 2012

10. FIRE-SAT an integrated model to monitoring in real time of forest FIRE in interface urban- forest areas and the development of ad hoc methodologies based on satellite data for the assessment of fire expansion

Funded Protezione Civile in the framework of operational monitoring of risk by 2013-

- 11 PI of FIRE-SAT an integrated model to real time monitoring of forest FIRE Funded Protezione Civile in the framework of operational monitoring of risk using Earth Observation Technologies by 2010- 2012

12. The main objectives of the research activities were to (i) develop methodologies based on the use of LIDAR data for the identification of archaeological areas buried under vegetation and the (ii) the use of satellite and airborne lidar data for the virtual reconstruction of the ancient landscape (iii) Virtual excavating for site valorization using LIDAR data and historical data source Ruolo svolto:Principal Investigator

13. PI of the project "Low cost technologies for fire monitoring: from the performance assessment to the availability of operative tools" funded by Basilicata Innovazione 2012-2013 FESR action

14. PI Scientific responsible for the CNR-IMAA activities of the CYBER-PARK FESR 2000 –Pilot project for the management of natural Protected areas" funded by the Puglia Region

15. "Fuel model, mapping and real time fire monitoring " Funded by Protezione Civile of the Basilicata region 2007/2009 PI

15. PROSCENIO funded by Protezione Civile Nazionale 2005-2007. (PI )

## **Partecipazione to national projects (some examples)**

1. Participation to the project “EO clima PON 2022-2019”
2. Participation to the programme “Development of industrial districts for the Earth Observation” (Programma PON 2000-2006, MIUR) Ruolo svolto:responsabile unita operativa CNR OR 4 monitoraggio incendi da satellite
3. Participation in the Project “Development and improvement of the CNR-IMAA Earth Observation Facility” (Programma PON 2000-2006 PC.P01.001)
4. Participation to project TIMORAN
5. Participation to project Pollino
6. Participation in the Project BioItaly and Natura 2000 for the Puglia Region1994-1996

## SELECTED PUBLICATIONS (OF THE LAST 5 YEARS)

see the list at <https://scholar.google.it/citations?user=h-s87zUAAAAJ&hl=it>

### 2020

1. Masini N, **R Lasaponara** 2020 Satellite and close range analysis for the surveillance and knowledge improvement of the Nasca geoglyphs Remote Sensing of Environment 236, 111447
2. Bachagha N, L Luo, X Wang, N Masini, T Moussa, H Khatteli, **R. Lasaponara** Mapping the Roman Water Supply System of the Wadi el Melah Valley in Gafsa, Tunisia, Using Remote Sensing Sustainability 12 (2), 5673..
3. Elfadaly A, **R Lasaponara** Cultural Heritage Management Using Remote Sensing Data and GIS Techniques around the Archaeological Area of Ancient Jeddah in Jeddah City, Saudi Arabia Sustainability 12 (1), 240
4. Wang X, **R Lasaponara**, L Luo, F Chen, H Wan, R Yang, J Zhen Digital Heritage Manual of Digital Earth, 565-591
5. Masini N, **R Lasaponara** Satellite and close range analysis for the surveillance and knowledge improvement of the Nasca geoglyphs Remote Sensing of Environment 236, 111447
6. .Bachagha N, X Wang, L Luo, L Li, H Khatteli, **R Lasaponara** Remote sensing and GIS techniques for reconstructing the military fort system on the Roman boundary (Tunisian section) and identifying archaeological sites Remote Sensing of Environment 236, 111418

### 2019

7. **R. Lasaponara**, M Proto A. Aromando, G. Cardettini, V. Varela, M. Danese, 2020 On the mapping of burnt areas and burn severity using Self Organizing Map and Sentinel 2 data (in press) IEEE Geoscience and Remote Sensing Letters GRSL-00413-2019.R3
8. **R Lasaponara**, B Tucci 2019 Identification of Burned Areas and Severity Using SAR Sentinel-1 IEEE Geoscience and Remote Sensing Letters 16 (6), 917-921
9. **R Lasaponara**, B Tucci, L Ghermandi 2018 On the Use of Satellite Sentinel 2 Data for Automatic Mapping of Burnt Areas and Burn Severity Sustainability 10 (11), 3889
10. E Hendawy, AA Belal, ES Mohamed, A Elfadaly, B Murgante, AA Aldosari, .. 2019. **R. Lasaponara** The Prediction and Assessment of the Impacts of Soil Sealing on Agricultural Land in the North Nile Delta (Egypt) Using Satellite Data and GIS Modeling Sustainability 11 (17), 4662

11. M Buzzi, B Rueter, L Ghermandi, **R Lasaponara** 2019 The Extent of Infrastructure Causing Fragmentation in the Hydrocarbon Basin in the Arid and Semi-Arid Zones of Patagonia (Argentina) Sustainability 11 (21), 5956
12. FT Gizzi, M Bentivenga, **R Lasaponara**, M Danese, MR Potenza, M Sileo, .. 2019. Natural Hazards, Human Factors, and “Ghost Towns”: a Multi-Level Approach
13. ES Mohamed, M Abu-hashim, MAE AbdelRahman, B Schütt, ...**R. Lasaponara** 2019 Evaluating the Effects of Human Activity over the Last Decades on the Soil Organic Carbon Pool Using Satellite Imagery and GIS Techniques in the Nile Delta Area, Egypt Sustainability 11 (9), 2644
14. A Elfadaly, **R Lasaponara** 2019 On the Use of Satellite Imagery and GIS Tools to Detect and Characterize the Urbanization around Heritage Sites: The Case Studies of the Catacombs of Mustafa Kamel in Sustainability
15. Tuna Kalayci , **Rosa Lasaponara**, John Wainwright and Nicola Masini , 2019 Multispectral Contrast of Archaeological Features: A Quantitative Evaluation Remote Sens. 2019, 11, 913; doi:10.3390/rs11080913
16. Nicodemo Abate and **Rosa Lasaponara**, Preventive Archaeology Based on Open Remote Sensing Data and Tools: The Cases of Sant’Arsenio (SA) and Foggia (FG), Italy, Sustainability 11 (15), 4145.

## 2018

17. P Lu, P Chen, Y Tian, Y He, D Mo, R Yang, **R Lasaponara**, N Masini 2018 Reconstructing settlement evolution from neolithic to Shang dynasty in Songshan mountain area of central China based on self-organizing feature map Journal of Cultural Heritage 2018/9/6
18. **R Lasaponara**, R Yang, F Chen, X Li, N Masini Corona Satellite Pictures for Archaeological Studies: A Review and Application to the Lost Forbidden City of the Han–Wei Dynasties Surveys in Geophysics, 1-20.
19. A Elfadaly, W Attia, **R Lasaponara** Journal of Archaeological Method Monitoring the Environmental Risks Around Medinet Habu and Ramesseum Temple at West Luxor, Egypt, Using Remote Sensing and GIS Techniques and Theory 25 (2), 587-61
20. L Luo, X Wang, **R Lasaponara**, B Xiang, J Zhen, L Zhu, R Yang, D Liu, ... Auto-Extraction of Linear Archaeological Traces of Tuntian Irrigation Canals in Miran Site (China) from Gaofen-1 Satellite Imagery Remote Sensing 10 (5), 718.
21. P Tang, F Chen, A Jiang, W Zhou, H Wang, G Leucci, L de Giorgi, M Sileo, **R.Lasaponara** Multi-frequency Electromagnetic Induction Survey for Archaeological Prospection: Approach and Results in Han Hangu Pass and Xishan Yang in China Surveys in Geophysics, 1-18
22. N Masini, C Marzo, P Manzari, A Belmonte, C Sabia, **R Lasaponara**. On the characterization of temporal and spatial patterns of archaeological crop-marks Journal of Cultural Heritage 2018/2/3.



23. A Elfadaly, W Attia, MM Qelichi, B Murgante, **R Lasaponara** Management of Cultural Heritage Sites Using Remote Sensing Indices and Spatial Analysis Techniques. Surveys in Geophysics, 1-31.
24. **R Lasaponara**, N Masini Space-Based Identification of Archaeological Illegal Excavations and a New Automatic Method for Looting Feature Extraction in Desert Areas Surveys in Geophysics, 1-24.
25. F Chen, J You, P Tang, W Zhou, N Masini, **R Lasaponara** Unique performance of spaceborne SAR remote sensing in cultural heritage applications: Overviews and perspectives Archaeological Prospection 25 (1), 71-79

## 2017

26. X Li, A Lanorte, **R Lasaponara**, M Lovallo, W Song, L Telesca Fisher–Shannon and detrended fluctuation analysis of MODIS normalized difference vegetation index (NDVI) time series of fire-affected and fire-unaffected pixels Geomatics, Natural Hazards and Risk 8 (2), 1342-1357
27. A Elfadaly, O Wafa, MAR Abouarab, A Guida, PG Spanu, **R Lasaponara** Geo-Environmental Estimation of Land Use Changes and Its Effects on Egyptian Temples at Luxor City. ISPRS International Journal of Geo-Information 6 (11), 378
28. N Masini, L Capozzoli, P Chen, F Chen, G Romano, P Lu, P Tang, M Sileo, **...R. Lasaponara** Towards an operational use of geophysics for archaeology in Henan (China): Methodological approach and results in Kaifeng. Remote Sensing 9 (8), 809
29. A Jiang, F Chen, N Masini, L Capozzoli, G Romano, M Sileo, R Yang **.R.Lasaponara** ..Archeological crop marks identified from Cosmo-SkyMed time series: the case of Han-Wei capital city, Luoyang, China . International Journal of Digital Earth 10 (8), 846-860
30. Peng Lu, Duowen Mo, Hui Wang, Ruixia Yang, Yan Tian, Panpan Chen, **Rosa Lasaponara**, Nicola Masini Relationship between Holocene Geomorphic Evolution of Rivers and Prehistoric Settlements Distribution in the Songshan Mountain Region of China 2017 Suistanability 152694
31. **Lasaponara R** Identification of traces of past human activities fossilized in the modern landscape Article reference: CULHER3174 Editorial of the special issue of Journal of Cultural Heritage, 2017.

## 2016

32. **Lasaponara, R.**, Leucci, G., Masini, N., Persico, R., & Scardozzi, G. (2016). Towards an operative use of remote sensing for exploring the past using satellite data: The case study of Hierapolis (Turkey). Remote Sensing of Environment, (174), 148-164.

33. Gabellone F, A Lanorte, N Masini, **R Lasaponara** - From remote sensing to a serious game: Digital reconstruction of an abandoned medieval village in Southern Italy Journal of Cultural Heritage, 2016
34. Peng Lu, Ruixia Yang, Panpan Chen, Yangshan Guo, Fulong Chen, Nicola Masini, **Rosa Lasaponara** On the use of historical archive of aerial photographs for the discovery and interpretation of ancient hidden linear cultural relics in the alluvial plain of eastern Henan, China Journal of Cultural Heritage, 2016
35. Lei Luo, Xinyuan Wang, Jie Liu, Huadong Guo, **Rosa Lasaponara**, Wei Ji, Chuansheng Liu Uncovering the ancient canal-based tuntian agricultural landscape at China's northwestern frontiers Journal of Cultural Heritage, 2016
36. **Lasaponara Rosa**, Nicola Masini, Antonio Pecci, Felice Perciante, Denise Pozzi Escot, Enzo Rizzo, Manuela Scavone, Maria Sileo Qualitative evaluation of COSMO SkyMed in the detection of earthen archaeological remains: The case of Pachamacac (Peru) Journal of Cultural Heritage, 2016
37. Aihui Jiang, Fulong Chen, Nicola Masini, Luigi Capozzoli, Gerardo Romano, Maria Sileo, Ruixia Yang, Panpan Tang, Panpan Chen, **Rosa Lasaponara**, Guolin Liu 2016 Archeological crop marks identified from Cosmo-SkyMed time series: the case of Han-Wei capital city, Luoyang, China International Journal of Digital Earth 1-1
38. Chen, Fulong, Nicola Masini and **Rosa Lasaponara**. "Multi-frequency satellite radar imaging of cultural heritage: the case studies of the Yumen Frontier Pass and Niya ruins in the Western Regions of the Silk Road Corridor." International Journal of Digital Earth (2016): 1-18
39. Athos Agapiou , Vasiliki Lysandrou **Rosa Lasaponara**, Nicola Masini And Diofantos G. Hadjimitsis Study Of The Variations Of Archaeological Marks At Neolithic Site Of Lucera, Italy Using High-Resolution Multispectral Datasets Remote Sens. 2016, 8(9), 723; Doi:10.3390/Rs8090723
40. Chen, Fulong, **Rosa Lasaponara**, and Nicola Masini. "An overview of satellite synthetic aperture radar remote sensing in archaeology: From site detection to monitoring." (2015).
41. G Nolè, B Murgante, G Calamita, A Lanorte, **R Lasaponara** 2015 Evaluation of Urban Sprawl from space using open source technologies Ecological Informatics DOI: 10.1016/j.ecoinf.2014.05.005.
42. C Stewart, **R Lasaponara**, G Schiavon 2014 Multi-frequency, polarimetric SAR analysis for archaeological prospection International Journal of Applied Earth Observation and Geoinformation 28

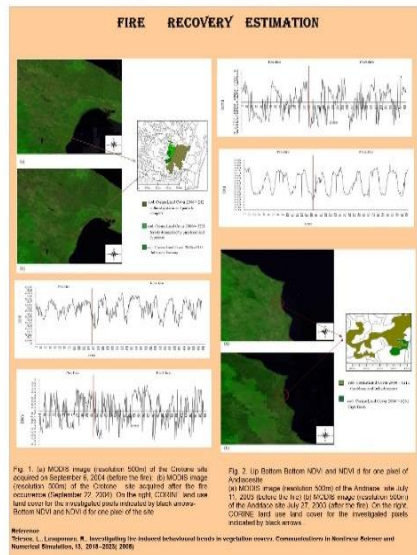
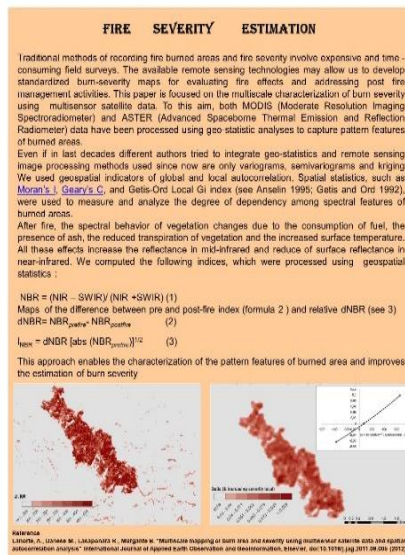
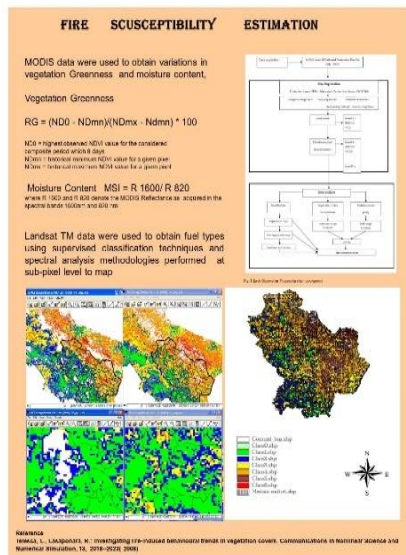
PATENT

Patent Lasaponara R & Lanorte A. 2009 An Integrated system for Fire monitoring Patent prot. 408719 del 24 agosto 2009 SISTEMA DI LOTTA ATTIVA AGLI INCENDI BOSCHIVI, N. 2008 A0016 (BELOW SOME EXAMPLES OF SATELLITE BASED PRODUCTS)



Daily estimates of fire danger using multitemporal satellite MODIS data: the experience of FIRE-SAT in the Basilicata Region (Italy)

Focus In the recent years the Basilicata Region (Southern Italy) has been characterized by an increasing incidence of fire disturbance which also tends to affect protected (Regional and national parks) and natural vegetated areas. FIRE-SAT project has been funded by the Civil Protection of the Basilicata Region in order to set up a low cost methodology for fire danger/risk monitoring and fire effect estimation based on satellite Earth Observation techniques. To this aim, NASA Moderate Resolution Imaging Spectroradiometer (MODIS), ASTER, Landsat TM data were used. The spectral capability and free of charge availability makes these data sets very suitable for daily monitoring of large areas.



17.01 2020

