

# curriculum vitae

Urbano Fra.Paleo

ORCID ID: <http://orcid.org/0000-0001-6192-7684>

ResearcherID: B-8088-2016

SCOPUS Author ID: 15053114000

## POSITION

Associate Professor | Habilitated Full Professor. University of Extremadura. Spain

## FIELDS OF INTEREST

Disaster risk, Governance, Evaluation, Natural hazards, Vulnerability, Sustainability

## EDUCATION

1984. BA in Applied Geography. University of Santiago de Compostela. Spain

1985. Honors Degree in Geography. University of Santiago de Compostela. Spain

1989. Council of Europe Postgraduate Program in Coastal Ecology. Autonomous University of Barcelona. Spain

1991. Diploma in Environmental Engineering. EOI Business School. Spain

1996. PhD in Applied Geography. University of Santiago de Compostela. Spain

## CERTIFICATION

1985. Postgraduate in Teaching Certificate. University of Santiago de Compostela. Spain

2003. Geomatics Specialist (GIS/LIS). Canadian Institute of Geomatics

## PROFESSIONAL EXPERIENCE

### Teaching and research

1998-2004. Assistant Professor. Department of Geography and Spatial Planning. University of Extremadura. Spain

2004-2007. Associate Professor. Department of Geography and Spatial Planning. University of Extremadura. Spain

2007-2013 [on leave]. Associate Professor. Department of Agricultural Engineering. University of Santiago de Compostela. Spain

2013-. Associate Professor. Department of Spatial Sciences. University of Extremadura. Spain

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### Research

1995. Assistant for Geographic Information System. US Geological Survey. Denver. United States

1996-1997. Research Associate. The Environment Institute. University of Denver. United States

1997-1998. Research Associate. Department of Agricultural Engineering. University of Santiago de Compostela. Spain

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### Visiting professor

1997. Erasmus visiting lecturer. Fachhochschule Neubrandenburg. Neubrandenburg, Germany

2001. Erasmus visiting lecturer. Department of Geology and Geography. University of Iceland. Iceland

2002. Erasmus visiting lecturer. Department of Geography. University of Marburg. Germany

2003. Erasmus visiting lecturer. Department of Geography. University of Köln. Germany

2011-2017. Department of Environment, Peace and Security. University for Peace. Costa Rica

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### Visiting scientist

July-August, 1999. US Geological Survey. Hawaii Volcano Observatory. Hawaii. United States

August-September 2001. Volcano Observatory, University of Colima. Mexico

August 2005. American Geographical Society Library. University of Wisconsin-Milwaukee. United States

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## FELLOWSHIPS

2005. Helen and John S. Best Research Fellow. American Geographical Society Library. University of Wisconsin-Milwaukee. United States

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## AWARDS

1997. Distinguished Dissertation Award. University of Santiago de Compostela. Spain

2008. Honorific Award in recognition of the INITIA Programme in Science and Technology. Spanish Research Council, Royal Spanish Society of Physics, Royal Spanish Society of Mathematics, Spanish Open University. Spain

2009. Sustainable Actions in Social Entrepreneurship Award. University of Santiago de Compostela and the Jaime Vera Foundation. Spain

2009. Innovation Award. University of Santiago de Compostela. Spain

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## MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS AND COMMITTEES

### Honor societies

Sigma Xi. The Scientific Research Society (1997)

### Membership in societies

The New York Academy of Sciences (2011)

American Geophysical Union. Focus Group on Natural Hazards. (2011)

The Association of American Geographers (1993)

### International Committees and Programmes

Adviser. International Foundation for Science (IFS). 2006-.

Urbanization and Global Environmental Change (UGEC). Future Earth. 2008-2017.

Disaster Risk Reduction Thematic Group. Commission on Ecosystem Management. International Union for Conservation of Nature (IUCN) 2011-2017.

Scientific Steering Committee. Integrated Risk Governance (IRG) Project. Future Earth. 2011-2014.

Senior Research Fellow. Earth System Governance. Future Earth. 2012-.

Study Group New Technologies for Disaster Monitoring and Management (SG4.1). International Association of Geodesy (IAG). 2012-2014.

Associate Member. International Scientific Committee on Risk Preparedness (ICORP) of the International Council on Monuments and Sites (ICOMOS). 2014-.

European Science & Technology Advisory Group (E-STAG). United Nations Office for Disaster Risk Reduction (UNDRR). 2018-.

UNDRR/ISC Hazard Terminology and Classification Review Task Team. United Nations Office for Disaster Risk Reduction (UNDRR). 2019-.

### National Committees and Programmes

Spanish National Committee. International Human Dimensions Programme on Global Environmental Change (IHDP). 2007-2014.

Committee of Experts. Galician School of Landscape. Fundación Juana de Vega. Spain. 2009-2014.

Committee of Experts. Programme Akademia. Fundación Bankinter. Spain. 2011-

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### Journal Advisory Board

Chinese Geographical Science. Springer

SpringerPlus. A SpringerOpen Journal

QScience Connect. Bloomsbury Qatar Foundation

Graduate Journal of Social Science

Sustainability

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## TEACHING

### Postgraduate

DED-6014. Disaster Risk Reduction. University for Peace. Costa Rica.

P4111203. Management of natural and technological hazards. MA on Sustainable land planning. University of Santiago de Compostela. Spain

400920. Research in Geography II. MA on Research in Humanities. University of Extremadura, Spain.

400671. Foundations of the curriculum in Geography. MA on Secondary Education. University of Extremadura, Spain.

### Graduate

500810. Human Geography. BA in Geography and Spatial Planning. University of Extremadura, Spain.

500840. Geospatial technologies for spatial analysis. BA in Geography and Spatial Planning. University of Extremadura, Spain.

500843. Theory and Methods. BA in Geography and Spatial Planning. University of Extremadura, Spain.

### Former

UGP-6001 Understanding Urban Risk and Resilience. University for Peace. Costa Rica.

P4111209. Introduction to research. MA in Sustainable land planning. University of Santiago de Compostela. Spain.

P4111106. Spatial analysis. MA in Sustainable land planning. University of Santiago de Compostela. Spain.

P4081121. Sustainable development. MA in Industrial Engineering. University of Santiago de Compostela. Spain.

M078215. Global change. Master in Oceanography. University of Vigo. Spain.

Ecosystems and landscape. BA in Humanities. University of Extremadura, Spain.

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### SUPERVISOR PHD STUDENTS

Silvia Calvo Iglesias. *Characterization and dynamics of the cultural landscapes in Galicia with GIS and Remote Sensing for planning and management*. University of Santiago de Compostela. 2005.

Paulo Manuel Pires Aguas. *Sustainability of management practices with agricultural bioresidues*. University of Extremadura. 2010.

Willem Timmermans. *Innovative land use and green planning in relation to complexity theory*. University of Santiago de Compostela. 2013.

Nathália Thais Cosmo da Silva. *Participatory construction of wildfire risk scenarios in the Brazilian Amazon and Galicia to advance risk governance*. University of Santiago de Compostela. 2017.

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## MENTOR

Mentorship Program. University of Carleton. Ottawa, Canada. First semester 2002-2003.

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## ACADEMIC SERVICE

1997-1998. Coordinator of GIS Unit. University of Santiago de Compostela. Spain.

2003-2004. Coordinator. Postgraduate Programme on Natural Hazards and Spatial Planning. University of Extremadura. Spain.

2001-2007. Coordinator. University of Extremadura. European Virtual Seminar on Sustainable Development. Spain.

2005-2014. Coordinator. Research Group on Natural Hazards and Vulnerability. University of Extremadura. Spain.

2007-2010. Manager. REDIX. The Research Network in Geographic Information Systems. University of Santiago de Compostela. Spain.

2015. Director. Summer course on Disaster risk governance. University of Extremadura, Spain.

2016. Director. Summer course on Disaster risk reduction strategies. University of Extremadura, Spain.

2017. Director. MOOC on Governance of Disaster Risk. MiriadaX - University of Extremadura.

2018. Director. MOOC on Governance of Disaster Risk. MiriadaX - University of Extremadura.

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## EVALUATION

2007. Seventh Framework Programme (FP7). European Commission. Environment [LINK](#)

2007. Slovak Research and Development Agency. Agentúra Na Podporu Výskumu Avývoja

2008. Seventh Framework Programme (FP7). European Commission. Environment [LINK](#)

2009. Evaluation of environmental sustainability of the School of Sciences. University of Santiago de Compostela. Spain

2009. Evaluation of environmental sustainability of the School of Engineering. University of Santiago de Compostela. Spain

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2011. Natural Environment Research Council (NERC). United Kingdom
2012. Evaluation of environmental sustainability of the School of Veterinary. University of Santiago de Compostela. Spain
2012. Screening of applications for the 2012 Land for Life Award. United Nations Convention to Combat Desertification (UNCCD)
2015. European Cooperation in Science and Technology (COST). European Union
2016. European Cooperation in Science and Technology (COST). European Union
2016. Horizon 2020. European Commission. Environment and resources.
2017. Horizon 2020. European Commission. Environment and resources.
2018. Evaluation of research. Pontificia Universidad Católica del Perú. Peru.
2018. Newton Prize Reviewer. UK National Commission for UNESCO.
2018. Centres of Excellence. Australian Research Council (ARC).
2018. Horizon 2020. European Commission. Environment and resources.
2018. COALESCE Research Fund 2019. Irish Research Council.
2019. OPUS Research Fund 2019. Poland National Science Centre.
2019. Horizon 2020. European Commission.
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### SCIENTIFIC ADVICE

2002. Technical consultancy on emergency, civil protection and local administration. Regional Government of Extremadura, Spain.
2014. Think-tank Nature-based solutions for disasters risk reduction. I.3 - Sustainable Management of Natural Resources, Directorate-General for Research and Innovation, European Commission.
- 2014-2018. Steering Committee of the UNEP/GEF MaB Project Agrobiodiversity Conservation and Man and the Biosphere Reserves in Cuba: Bridging Managed and Natural Landscapes. Bioversity International.
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### RESEARCH GRANTS

- 1998-1999. European Union. FEDER Study Program on European Spatial Planning. Researcher.
- 1999-2000. Junta de Extremadura. Pilot Project to optimize selective collection routes of urban solid waste. Principal investigator.

1999-2000. Xunta de Galicia. Development based on GIS of a methodology to select areas for land consolidation in Galicia. Researcher.

2000-2001. Ministry of Education and Science. Design of a GIS application to develop land consolidation projects. Researcher.

2000-2001. Ministry of Education and Science. Research Project on GIS application for private forestland inventory and districting. Researcher.

2001-2003. Extremadura Regional Government. Suitability models for the vegetation of Extremadura and its application to natural resource conservation and management. Researcher.

2000-2002. NATO CCMS Pilot Study on Regional/Transboundary Transport of Air Pollution. Researcher.

2002-2003. NATO CCMS Pilot Study on Integrated Water Management. Researcher.

2003-2004. International Science and Technology Center (ISTC). Russia. Geoinformation System to Ensure Ekaterinburg's Environmental Safety. Researcher.

2003. Centre National d'Etudes Spatiales (CNES) - SPOT Image. High Resolution Stereoscopic (HRS) Scientific Assessment Program. Researcher.

2003. IUGS-UNESCO - International Geological Correlation Program – Natural History Museum, London. Metallogeny of Central Asia: A GIS-based synthesis on a modern geodynamic background. Researcher.

2003-2005. Ministry of Education and Science. Ecological assessment of the Dehesa landscape and change prediction of land coverage for spatial planning. Researcher.

2004. Spanish Agency for International Cooperation - Ecole Nationale Forestière d'Ingénieurs, Sale, Morocco. Research Project on Integrated Water Management in the Bouregreg Basin. Opportunities and Limitations. Principal investigator.

2005-2007. Ministry of Education and Science. Volcanological and structural analysis of the NE and NW rifts of the Tenerife Island (Canary Islands). Researcher.

2008-2012. COST. European Cooperation in the field of Scientific and Technical Research. Semantic enrichment of 3D city models for sustainable urban development. Researcher.

2008-2010. Galician Regional Government. Geographic information systems for urban and regional planning applying optimization techniques by using multicore processors. Researcher.

2009-2011. Spanish Ministry of Science and Innovation. Present and potential scenarios of exposure and vulnerability to natural hazards. Principal investigator.

2009-2011. Science and Technology Center in Ukraine (STCU). The first step to creation of real time geotechnical telemetric monitoring system of large dams: the case of the Enguri Dam International Test Area. Researcher.



2009-2011. Fundación Biodiversidad. Spanish Ministry for the Environment. Activation of resources in the Biosphere Reserve Terras do Miño to promote a better quality of life. Principal investigator.

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### **OTHER GRANTS**

1989. Council of Europe Postgraduate Program in Coastal Ecology of the Mediterranean Sea. Council of Europe.

1996. Internationalization Small Grants Program. University of Denver. United States

1997. Small Grants Program for the Environment Institute. University of Denver. United States

1999. Junta de Extremadura. Visiting grant at the Hawaiian Volcano Observatory, US Geological Survey. Hawaii.

2000-2002. NATO Fellowship. CCMS Pilot Study on Regional/Transboundary Transport of Air Pollution.

2000. NATO Science Program. Advanced Study Institute. Nonlinear Dynamics in Life and Social Sciences. Moscow (Russia).

2000. Participation in the Investing in Europe's Human Research Potential. European Commission – Greek Ministry of Development – Marie Curie Fellowships Association. Crete (Greece).

2001. NATO Science Program. NATO Advanced Research Workshop on GIS for Emergency Preparedness and Health Risk Reduction. Budapest (Hungary).

2001. Visiting Research Grant at the Volcano Observatory. University of Colima. Secretary of Foreign Affairs Fellowship. United States of Mexico.

2001. Visiting Research Grant at the Volcano Observatory. University of Colima, Mexico. Extremadura Regional Government.

2002. NATO Science Program. NATO Advanced Research Workshop on Air Pollution Processes in Regional Scale. Halkidiki (Greece).

2008. NATO Grant to organize the Advanced Training Course on Spatial Planning as a Strategy for Mitigation and Adaptation to Natural Hazards. Santiago de Compostela, Spain.

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## PUBLICATIONS

### Books

Crecente, R., C. Álvarez and U. Fra Paleo. 2001. *Land consolidation in Galicia*. Consellería de Agricultura. Santiago. (in Spanish)

Melas, D. and Fra Paleo, U. (eds.) 2008. *Regional Transboundary Transport of Air Pollution. An Introductory Science Review*. Cáceres: University of Extremadura.

Fra Paleo, U. (editor). 2009. *Building safer communities. Risk governance, spatial planning, and responses to natural hazards*. Amsterdam: IOS Press.

ISBN 978-1-60750-046-9

ISBN online: 978-1-60750-510-5

Library of Congress Control Number: 2009932645

Fra Paleo, U. (editor). 2010. *Natural hazards in Galicia. The encounter between nature and society* (in Spanish). Santiago de Compostela: Consorcio de Compensación de Seguros-University of Santiago de Compostela.

Fra Paleo, U. and R. Crecente (ed.). 2011. *Biosphere reserves as a spatial strategy towards sustainability* (in Spanish). Santiago de Compostela: University of Santiago de Compostela Press.

Fra Paleo, U. 2011. *Dictionary of Photogrammetry*. Barcelona, Institut Cartogràfic de Catalunya.

Crecente R. and U. Fra Paleo. (ed.). 2012. *Essays in spatial planning* (in Spanish). Santiago de Compostela: University of Santiago de Compostela Press.

Crecente R. and U. Fra Paleo. (ed.). 2013. *Essays in spatial planning II* (in Spanish). Santiago de Compostela: University of Santiago de Compostela Press.

Fra.Paleo, U. (editor). 2015. *Risk governance. The articulation of hazard, politics and ecology*. Dordrecht: Springer.

ISBN 978-94-017-9327-8

ISBN Online: 978-94-017-9328-5

DOI 10.1007/978-94-017-9328-5

Fra.Paleo, U. and J. Lopez, (editors). 2016. *Essays in spatial planning III* (in Spanish). Santiago de Compostela: University of Santiago de Compostela Press.

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### Book chapters

Various authors. 1999. *Study Programme on European Spatial Planning 1998-1999 (SPESP)*. NORDREGIO.

Fra Paleo, U. and B. Mosquera. 2000. Landscape features in place names in Hawai'i. In *Homenaje a la profesora Carmen Perez Romero*. Universidad de Extremadura, Cáceres. pp. 311-319.

- Fra Paleo, U. and F. Trusdell. 2002. Volcanic risk assessment and spatial planning policies in the island of Hawai'i. Modelling lava flows from Mauna Loa Volcano. In *GIS for emergency preparedness and health risk reduction*. D.J. Briggs, P. Forer, L. Järup and R. Stern (eds). Dordrecht: Kluwer. pp. 115-135.
- Fra Paleo, U. 2003. Spatial Dependence and Horizontal Interpolation of Ozone Concentrations from Vertical Lidar Measurements in the Aegean Sea. In *Air Pollution Processes in Regional Scale*. D. Melas, and D. Syrakov (eds.). Dordrecht: Kluwer. pp. 55-63.
- Fra Paleo, U. 2005. Information and Spatial Data Processing in Risk Management. In *Data fusion for Situation Monitoring, Incident Detection, Alert and Response Management*. E. Shabazian, G. Rogova and P. Valin (eds.). IOS, Amsterdam. pp. 760-773.
- Fra Paleo, U. 2006. Environment in the European Union and Spain. In *Territorial Planning and its Effects on Environmental Pollution*. M. Prendez, ed. Santiago de Chile: University of Chile. pp. 193-200.
- Carracedo, J.C., Rodríguez, E., Guillou, H., Scaillet, S., Paterne, M., Pérez, F.J., Paris, R., Fra, U., Hansen, A. 2006. Geocronología e historia volcánica del complejo volcánico del Teide y las dorsales de Tenerife. In *Los volcanes del Parque Nacional del Teide. El Teide, Pico Viejo y las dorsales activas de Tenerife*. J.C. Carracedo (ed.). Madrid: Ministerio de Medio Ambiente. pp. 69-97. (in Spanish)
- Paris, R., Fra, U., Hansen, A. 2006. Geomorfología del Teide y las dorsales activas. Parte I: Geomorfología volcánica. In *Los volcanes del Parque Nacional del Teide. El Teide, Pico Viejo y las dorsales activas de Tenerife*. J.C. Carracedo (ed.). Madrid: Ministerio de Medio Ambiente. pp. 241-256. (in Spanish)
- Carracedo, J.C., Fra, U., Rodríguez Badiola, E., Pérez Torrado, F.J., Paris, R., Guillou, H., Scaillet, S., Hansen Machín, A. 2006. Los peligros volcánicos asociados al complejo del Teide y los rifts activos de Tenerife. In *Los volcanes del Parque Nacional del Teide. El Teide, Pico Viejo y las dorsales activas de Tenerife*. Juan C. Carracedo (ed.). Madrid: Ministerio de Medio Ambiente. pp. 361-388. (in Spanish)
- Calvo, S., Crecente, R., Díaz, R., Fra, U., and Ramil, P. 2008. Changes in Hedgerow Structures during 1957-2000 in the Northern Mountains of Galicia (NW Spain). In *Bocages et Sociétés*. Annie Antoine and Dominique Marguerie (eds.). Rennes: Presses Universitaires de Rennes. pp. 155-158.
- Fra Paleo, U. 2008. The application of geospatial technologies to the analysis of air pollution processes. In *Regional Transboundary Transport of Air Pollution. An Introductory Science Review*. D. Melas and U. Fra (eds.). Caceres: University of Extremadura. pp. 127-141.
- Fra Paleo, U. 2009. On exposure to natural hazards. Revisiting a neglected primal action. In *Building safer communities. Risk governance, spatial planning and responses to natural hazards*. U. Fra (ed.). Amsterdam: IOS Press. pp. 61-87.

Calvo, S., Díaz, R., Díaz, E., Fra Paleo, U. and Crecente, R. 2009. Agrad as a field system in Galicia, NW Spain. In *Cultural Landscapes of Europe*. Bremen: Aschenbeck media. pp. 92-93.

Fra Paleo, U. 2010. Surveying the coverage and remains of cultural landscapes of Europe. In *Sustainable use of biological diversity in socio-ecological production landscapes*. Edited by C. Belair, K. Ichikawa, B.Y.L. Wong, and K.J. Mulongoy. Montreal: Secretariat of the Convention on Biological Diversity. Technical Series no. 52. pp. 39-44.

Fra Paleo, U. 2010. The dehesa/montado landscape (Portugal/Spain). In *Sustainable use of biological diversity in socio-ecological production landscapes*. Edited by C. Belair, K. Ichikawa, B.Y. L. Wong, and K.J. Mulongoy. Montreal: Secretariat of the Convention on Biological Diversity. Technical Series no. 52. pp. 125-127.

Fra Paleo, U. 2010. Uncertainty in the quite land. Natural hazards in Galicia. In *Natural hazards in Galicia*. U. Fra (ed.). Santiago de Compostela, Consorcio de Compensación de Seguros-University of Santiago de Compostela. pp. 1-12. (in Spanish)

Fra Paleo, U. 2010. The dimensions of historical floods in Galicia. Risk communication. In *Natural hazards in Galicia*. U. Fra (ed.). Santiago de Compostela, Consorcio de Compensación de Seguros-University of Santiago de Compostela. pp. 47-63. (in Spanish)

Fra Paleo, U. 2010. Tsunami, A sub estimated coastal natural hazard. In *Natural hazards in Galicia*. U. Fra (ed.). Santiago de Compostela, Consorcio de Compensación de Seguros-University of Santiago de Compostela. pp. 167-182. (in Spanish)

Fra Paleo, U. 2010. El avance de la gestión hacia la gobernanza del riesgo en un contexto de complejidad e incertidumbre. In *Recursos naturais, sistemas de informação geográfica e procesos sociais*. J.A. Ferreira, C.J. Einloft, and R.L. Gonçalves (Eds.). Viçosa: Universidade Federal de Viçosa. pp. 43-57. (in Spanish)

Fra Paleo, U. 2011. Información e incertidumbre en la planificación del riesgo. In *Desenvolvimento rural, sustentabilidade e ordenamento territorial*. J.A. Ferreira, C.J. Einloft y R.L. Gonçalves (eds.). Visconde do Río Branco: Suprema. pp. 51-60. (in Spanish)

Guadagno, L. Depietri, Y. and Fra Paleo, U. 2013. Urban disaster risk reduction and ecosystem services. In *The role of Ecosystem Services in Disaster Risk Reduction*. F. Renaud, K. Sudmeier-Rieux, and M. Estrella (eds.). Bonn: United Nations University. pp. 389-415.

Fra Paleo, U. 2013. A functional risk society? Progressing from management to governance while learning from disasters. In *World Social Science Report 2013: Changing Global Environments*. Paris: UNESCO-ISSC. pp. 434-438.

Fra Paleo, U. 2014. Principles for the measurement and evaluation of risk governance. In M. Bostenaru, I. Armas, and A. Goretti (eds.). *Earthquake Hazard Impact and Urban Planning*. Berlin: Springer. pp. 171-194.

Fra.Paleo, U. 2015. Structure, process, and agency in the evaluation of risk governance. In Fra.Paleo, U. (editor). *Risk governance. The articulation of hazard, politics and ecology*. Dordrecht: Springer. pp. 237-273.

Fra.Paleo, U. 2015. Human perturbation and environmental governance of the coastal lagoon of A Frouxeira, Spain, for seasonal flood mitigation of suburban dwellings. In Murti, R. and Buyck, C. (eds.). *Safe havens: Protected areas for disaster risk reduction and climate change adaptation*. Gland: IUCN. pp. 116-123.

Salazar, R., D. Miranda, and U. Fra. 2017. Management of Natural Risks and Disasters in a River Basin Within the New Cadastre Concept. In Tahsin Yomralioglu and John McLaughlin (eds.). *Cadastre: Geo-Information Innovations in Land Administration*. Cham: Springer. pp. 47-54.

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### Journal papers

Fra Paleo, U. and Trusdell, F. 2000. Modeling lava flows for risk evaluation and spatial planning in Hawai'i. *Boletín de la Asociación de Geógrafos Españoles*, 30: 181-192. ISSN 0212-9426. (in Spanish)

Crecente, R., Álvarez, C. and Fra Paleo, U. 2002. Economic, Social and Environmental Impact of Land Consolidation. *Land Use Policy* 19: 135-147. [https://doi.org/10.1016/S0264-8377\(02\)00006-6](https://doi.org/10.1016/S0264-8377(02)00006-6)

Fra Paleo, U. 2006. Site and Situation. Impossible but Inevitable Cities. *Space and Culture* 9(1): 20-22. <https://doi.org/10.1177/1206331205283874>

Calvo, S., R. Crecente and U. Fra. 2006. Exploring farmer's knowledge as a source of information on past and present cultural landscapes: A case study from NW Spain. *Landscape and Urban Planning* 78(4): 334-343. <https://doi.org/10.1016/j.landurbplan.2005.11.003>

Calvo, S., U. Fra, R. Crecente and R. Díaz. 2007. Directions of change in land cover and landscape patterns from 1957 to 2000 in agricultural landscapes in NW Spain. *Environmental Management*. <https://doi.org/10.1007/s00267-005-0276-1>

Carracedo, J.C., Rodríguez Badiola, E., Guillou, H., Paterne, M., Scaillet, S., Pérez Torrado, F.J., Paris, R., Fra, U., and Hansen, A. 2007. Eruptive and Structural History of Teide Volcano and Rift Zones of Tenerife, Canary Islands. *The Geological Society of America Bulletin* 119(9-10): 1027-1051. <https://doi.org/10.1130/B26087.1>

Carracedo, J.C., Rodríguez Badiola, E., Pérez Torrado, F.J., Hansen, A., Rodríguez González, A., Scaillet, S., Guillou, H., Paterne, M., Fra, U., and Paris, R. 2007. La erupción que Cristóbal Colón vio en la Isla de Tenerife (Islas Canarias). *Geogaceta* 41: 39-42.

Calvo, S., U. Fra, and R. Díaz. 2009. Changes in farming system and population as drivers of land cover and landscape dynamics: The case of enclosed and semi-openfield systems in Northern Galicia (Spain). *Landscape and Urban Planning*, 90(3-4): 168-177.

<https://doi.org/10.1016/j.landurbplan.2008.10.025>

Ferreira, J.A., M.C. de Oliveira, E. Carneiro, U. Fra and J.L. Lani. 2011. Aptidão Agrícola e algoritmos genéticos na organização espacial em projetos de reforma agrária. *Revista Brasileira de Ciência do Solo*, 35(1): 255-261.

<http://dx.doi.org/10.1590/S0100-06832011000100024>

Matcharashvili, T., T. Chelidze, Z. Javakhishvili, N. Jorjiashvili and U. Fra Paleo. 2011. Non-extensive statistical analysis of seismicity in the area of Javakheti, Georgia. *Computers & Geosciences*, 37(10): 1627–1632.

<https://doi.org/10.1016/j.cageo.2010.12.008>

Matcharashvili, T., T. Chelidze, V. Abashidze, N. Zhukova, E. Mepharidze and U. Fra Paleo. 2011. Evidence for changes in the dynamics of Earth crust tilts caused by the large dam construction and reservoir filling at the Enguri dam international test area (Georgia). *Nonlinear Dynamics*, 66(4): 523-529.

<https://doi.org/10.1007/s11071-010-9930-0>

Ferreira Neto, J.A., E. Carneiro dos Santos, U. Fra Paleo, D. Miranda Barros, M. César de Oliveira Moreira. 2011. Optimal subdivision of land in agrarian reform projects: an analysis using genetic algorithms. *Ciencia e investigação agraria*. 38(2):169-178.

<http://dx.doi.org/10.4067/S0718-16202011000200001>

Calvo-Iglesias, S.; Diaz-Varela, R.; Mendez-Martinez, G.; Fra-Paleo, U. 2012. Using place names for mapping the distribution of vanishing historical landscape features: The agras field system in NW Spain. *Landscape Research*, 37(4): 501-517.

<https://doi.org/10.1080/01426397.2011.604716>

Murray, C.J., (...) Fra.Paleo, U., (...), and Vos, T. 2014. Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 384(9947): 1005-1070.

[https://doi.org/10.1016/S0140-6736\(14\)60844-8](https://doi.org/10.1016/S0140-6736(14)60844-8)

Naghavi, M., (...) Fra.Paleo, U., (...) and Murray, C.J.L. 2014. Global, regional, and national age–sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 385(9963): 117-171.

[https://doi.org/10.1016/S0140-6736\(14\)61682-2](https://doi.org/10.1016/S0140-6736(14)61682-2)

Sudmeier-Rieux, K., Fra Paleo, U., Garschagen, M., Estrella, M., Renaud, F.G. and Jaboyedoff, M. 2015. Opportunities, Incentives and Challenges to Risk Sensitive Land Use Planning: Lessons from Nepal, Spain and Vietnam. *International Journal of Disaster Risk Reduction*, 14: 205-224.

<https://doi.org/10.1016/j.ijdrr.2014.09.009>

Forouzanfar, M.H. (...) Fra.Paleo, U., (...) and Murray, C.J.L. 2015. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010): 2287-2323.

[https://doi.org/10.1016/S0140-6736\(15\)00128-2](https://doi.org/10.1016/S0140-6736(15)00128-2)

Murray, C.J.L., (...) Fra.Paleo, U., (...) and Vos, T. 2015. Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990–2013: quantifying the epidemiological transition. *The Lancet*, 386(10009): 2145-2191.

[https://doi.org/10.1016/S0140-6736\(15\)61340-X](https://doi.org/10.1016/S0140-6736(15)61340-X)

J.A. Puppim and Fra.Paleo, U. 2016. Lost in participation: How local knowledge was overlooked in land use planning and risk governance in Tōhoku, Japan. *Land Use Policy*, 52: 543-551.

<https://doi.org/10.1016/j.landusepol.2014.09.023>

Fra.Paleo, U. (2019) Timescape of disaster risk governance in contemporary Japan: Neither state of normalcy nor constancy in regulation. *PLoS ONE* 14(4): e0215164.

<https://doi.org/10.1371/journal.pone.0215164>

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### Book reviews

Review of Mark Pelling, Editor, *Natural disasters and development in a globalizing world*, Routledge, London (2003) ISBN 0-415-27957-7 (hardback), 0-415-27958-5 (paperback) 250 pp., index. *Political Geography*, 24 (6): 765-768. doi:10.1016/j.polgeo.2004.09.013

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## REVIEWER

### Assessment Reports

Expert Reviewer: IPCC Special Report on Climate Change and Land (SRCCL). Intergovernmental Panel on Climate Change (IPCC).

Expert Reviewer: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC). Intergovernmental Panel on Climate Change (IPCC).



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### Scholarly Journals

IEEE Transactions on Geoscience and Remote Sensing

Remote Sensing of the Environment

Political Geography

Disasters. The Journal of Disaster Policy, Studies and Management

International Journal of Disaster Risk Reduction

Journal of Homeland Security and Emergency Management

Landscape and Urban Planning

International Journal of Geographical Information Science

Journal of Agricultural Science and Technology

Journal of Hydrology

Journal of Agricultural Science and Technology

Bosque

Revista Internacional de Sociología

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### DEVELOPMENT OF EVALUATION TOOLS

AISHE 2.0. Assessing Instrument for Sustainability in Higher Education. In partnership with Niko Roorda, Avans University for Applied Sciences, The Netherlands; Sylvia Waara, Halmstad University, Sweden; Christian Rammel, University of Vienna, Austria.

Evaluation Tool of Risk Governance (Risonance). In progress.

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### ORGANIZATION OF EVENTS

Secretary of the summer course Perspectives for planning and development of the rural area. University of Santiago de Compostela. Spain. July 20-23, 1998.

Secretary of the summer course on rural development and planning. University of Santiago de Compostela. Spain. July 20-23, 1999.

Session Chair. Conference on Development of borders and limits to development. University of Extremadura. Spain. March 16-18, 1999.

Member of the Scientific Committee of the Workshop on the Applications of Geographic Information Systems in Agriculture and Forestry. University of Santiago de Compostela. Lugo. Spain. July 1-2, 1999.



Member of the Organizing Committee of the Congress on Evaluation of new technologies of spatial analysis by means of cartography and geographic information systems. University of Extremadura. Spain. December 1-3, 1999.

Member of the Technical Committee on the Analysis of flooding hazards in the Region of Extremadura. Government of the Autonomous Government of Extremadura. Spain. 2002.

Member of the Organizing Committee of the Latin American Conference on Geographic Information Systems. Cáceres, Spain. 24-26 September 2003.

Director. NATO Advanced Training Course on Spatial Planning as a Strategy for Mitigation and Adaptation to Natural Hazards. Santiago de Compostela, Spain. 3-8 March 2008.

Member of the Scientific Committee of the International ForestSAT 2010 Conference. Operational tools in forestry using remote sensing techniques. Lugo, Spain. 7-10 September 2010.

Member of the International Scientific Planning Committee. 1st International Conference on Urbanization and Global Environmental Change. Tempe, Arizona. 15-17 October 2010.

Member of the Organizing Committee of the Congress on Biosphere Reserves as a sustainable spatial strategy. Lugo, Spain. 3-4 September 2011.

Chair. Session on Risk Governance. Third Global Platform on Disaster Risk Reduction. United Nations International Strategy for Disaster Risk Reduction (UNISDR). Geneva. Switzerland. 8-13 May 2011.

Member of the Organizing Committee of the International Seminar Brazil-Spain-Portugal. Lugo, Spain. 5-7 June 2013.

Scientific Committee. 5th International Conference on Geoinformation Technologies for Natural Disaster Management (GiT4NDM 2013). Mississauga, Ontario, Canada, October 9-11, 2013.

Scientific Committee. XVI Latin American Conference of Geographic Information Systems. 27-29 September 2017. Cuenca, Ecuador.

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### **INVITED SPEAKER/PARTICIPANT**

2000. NATO Science Program. Advanced Study Institute. Nonlinear Dynamics in Life and Social Sciences. Moscow, Russia.

2001. NATO Science Program. NATO Advanced Research Workshop on GIS for Emergency Preparedness and Health Risk Reduction. Budapest, Hungary.

2002. NATO Science Program. NATO Advanced Research Workshop on Air Pollution Processes in Regional Scale. Halkidiki, Greece.

2003. NATO Science Program. Advanced Study Institute on Data Fusion. Yerevan, Armenia.

2007. High-Level Advisory Board of the International Network on the Financial Management of Large-Scale Catastrophes. Organisation for Economic Cooperation and Development (OECD). Paris, France.

2010. First Brazil-Spain-Portugal Workshop on Natural resources, GIS and social processes. University of Viçosa. Brazil.

2010. Global Workshop on the Satoyama Initiative. United Nations University-Institute of Advanced Studies (IAS). UNESCO. Paris, France.

2010. International Conference on Urbanization and Global Environmental Change. Urbanization and Global Environmental Change (UGEC). Arizona State University. Tempe, Arizona.

2011. First Annual Sigma Xi European Regional Meeting and Research Conference. Aalto University. Helsinki, Finland.

2011. Second Brazil-Spain-Portugal Workshop on Rural development, sustainability and spatial planning. University of Viçosa. Brazil.

2014. Global Training of instructors on ecosystem-based disaster risk reduction and climate change adaptation (ecoDRR/CCA). United Nations Environmental Programme (UNEP), Indonesian Institute of Sciences (LIPI), United Nations University-Institute for Environment and Human Security (UNU-EHS), Center for Natural Resources and Development. Bogor, Indonesia.

Ignite Session on Risonance. 2017 Global Platform on Disaster Risk Reduction. United Nations International Strategy for Disaster Risk Reduction (UNISDR). Cancun. Mexico. 22-26 May 2017.

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