

Part A. PERSONAL INFORMATION

CV date	05/12/2022
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First and Family name	José María Fernández Fernández		
Researcher codes	WoS Researcher ID	H-5801-2017	
	SCOPUS Author ID	57194780625	
	Open Researcher and Contributor ID (ORCID)	0000-0002-6948-1530	

A.1. Current position

Name of University/Institution	Universidad Complutense de Madrid		
Department	Department of Geography		
Address and Country	C/ Profesor Aranguren, s/n, Facultad de Geografía e Historia		
E-mail	josemariafernandez@ucm.es		
Current position	Assistant Professor	From	Oct-2021
Key words	Physical Geography, cryosphere, glaciers, geomorphology, palaeoclimatology, mountain areas, Polar Regions, Quaternary, cosmic-ray exposure dating, Antarctica, Iceland		

A.2. Education

PhD	University	Year
PhD, Geography	Universidad Complutense de Madrid	2019
MSc, Geographical Information Technologies	Universidad Complutense de Madrid	2014
BSc in Geography	Universidad Complutense de Madrid	2013

A.3. JCR articles, h Index

Total JCR publications: 26

Total citations (Google Scholar)

- Total citations: 226; 2015 (1); 2016 (2), 2017 (1), 2018 (17), 2019 (42), 2020 (83), 2021 (101), 2022 (96)
- H index = 10
- i10 index = 12

Total citations (Web of Science)

- Total citations: 161; 2015 (0); 2016 (0), 2017 (1), 2018 (9), 2019 (32), 2020 (52), 2021 (79), 2022 (32)
- H index = 10
- Average citations per year: 39.8

Part B. CV SUMMARY

José María Fernández Fernández holds a PhD in Geography (2019, Extraordinary PhD Award, *cum laude* and International Doctorate), MSc in Geographical Information Technologies (2014) and BSc in Geography (2013). Member of the “High Mountain Physical Geography” (GFAM) Research Group. His research lines focus on the study of the relations between glaciers and climate in Polar and mountain areas since the end of the Last Glacial Cycle through the application of a number of techniques, namely: geomorphological mapping, geographical information systems, cosmic-ray exposure dating (^{10}Be and ^{36}Cl cosmonuclides), numerical modelling of palaeoglaciators, and palaeoclimatic reconstructions. He has hitherto been involved in 7 national and international R&D funded projects focused on the deglaciation. In addition, he has done fieldwork in Polar (Antarctica) and subpolar (Northern Iceland) regions, and in the Iberian mountains (NW Ranges, Cantabrian Mountains, Central Range, Iberian Range and Pyrenees).

Part C. RELEVANT MERITS

C.1. Publications (including books)

Research papers in JCR peer-reviewed journals.

1. García-Oteyza, J., Oliva, M., Palacios, D., **Fernández-Fernández, J.M.**, Schimmelpfennig, I., Andrés, N., Antoniades, D., Christiansen, H.H., Humlum, O., Léanni, L., Jomelli, V., Ruiz-Fernández, J., Rinterknecht, V., Lane, T.P., Adamson, K., ASTER Team, 2022. Late Glacial deglaciation of the Zackenberg area, NE Greenland. *Geomorphology* 401, 108125.
2. Tanarro, L.M., Palacios, D., **Fernández-Fernández, J.M.**, Andrés, N., Oliva, M., Rodríguez-Mena, M., Schimmelpfennig, I., Brynjólfsson, S., Sæmundsson, Þ., Zamorano, J.J., Úbeda, J., ASTER Team, 2022. Origins of the divergent evolution of mountain glaciers during deglaciation: Hofsdalur, cirques, Northern Iceland. *Quaternary Science Reviews* 273, 107248.
3. Fernandes, M., Oliva, M., Vieira, G., Palacios, D., **Fernández-Fernández, J.M.**, Delmas, M., García-Oteyza, J., Schimmelpfennig, I., Ventura, J., ASTER Team, 2021. Maximum glacier extent of the Penultimate Glacial Cycle in the Upper Garonne Basin (Pyrenees): new chronological evidence. *Environmental Earth Sciences* 80, 796.
4. Fernandes, M., Oliva, M., Vieira, G., Palacios, D., **Fernández-Fernández, J.M.**, García-Oteyza, J., Schimmelpfennig, I., ASTER Team, Antoniades, D., 2021. Glacial oscillations during the Bølling–Allerød Interstadial–Younger Dryas transition in the Ruda Valley, Central Pyrenees. *Journal of Quaternary Science* 1–17.
5. Araneda, C., **Fernández, J.M.**, Oliva, M., Palfner, G., Casanova-Katny, A. (*in press*). Diversidad de musgos en comunidades vegetales asociadas a una pingüinera en la Isla Decepción, Antártica Marítima. *Gayana Botánica* 78 (1).
6. **Fernández-Fernández, J.M.**, Oliva, M., Palacios, D., García-Oteyza, J., Navarro, F.J., Schimmelpfennig, I., Léanni, L., ASTER Team, 2021. Ice thinning on nunataks during the glacial to interglacial transition in the Antarctic Peninsula region according to Cosmic-Ray Exposure dating: Evidence and uncertainties. *Quaternary Science Reviews* 264, 107029.
7. Palacios, D., Rodríguez-Mena, M., **Fernández-Fernández, J.M.**, Schimmelpfennig, I., Tanarro, L.M., Zamorano, J.J., Andrés, N., Úbeda, J., Sæmundsson, Þ., Brynjólfsson, S., Oliva, M., ASTER Team, 2021. Reversible glacial-periglacial transition in response to climate changes and paraglacial dynamics: A case study from Héðinsdalsjökull (northern Iceland). *Geomorphology* 388.
8. Rodríguez-Mena, M., **Fernández-Fernández, J.M.**, Tanarro, L.M., Zamorano, J.J., Palacios, D., 2021. Héðinsdalsjökull, northern Iceland: geomorphology recording the recent complex evolution of a glacier. *Journal of Maps* 17, 301–313.
9. Oliva, M., Fernandes, M., Palacios, D., **Fernández-Fernández, J.-M.**, Schimmelpfennig, I., Antoniades, D., Aumaître, G., Bourlès, D., Keddadouche, K., 2021. Rapid deglaciation during the Bølling–Allerød Interstadial in the Central Pyrenees and associated glacial and periglacial landforms. *Geomorphology* 385, 107735.
10. Palacios, D., Oliva, M., Gómez-Ortiz, A., Andrés, N., **Fernández-Fernández, J.M.**, Schimmelpfennig, I., Léanni, L., ASTER Team, 2020. Climate sensitivity and geomorphological response of cirque glaciers from the late glacial to the Holocene, Sierra Nevada, Spain. *Quaternary Science Reviews* 248, 106617.
11. García-Ruiz, J.M., Palacios, D., **Fernández-Fernández, J.M.**, Andrés, N., Arnáez, J., Gómez-Villar, A., Santos-González, J., Álvarez-Martínez, J., Lana-Renault, N., Léanni, L., 2020. Glacial stages in the Peña Negra valley, Iberian Range, northern Iberian Peninsula: Assessing the importance of the glacial record in small cirques in a marginal mountain area. *Geomorphology* 362, 107195.
12. **Fernández-Fernández, J.M.**, Palacios, D., Andrés, N., Schimmelpfennig, I., Tanarro, L.M., Brynjólfsson, S., López-Acevedo, F.J., Sæmundsson, Þ., ASTER Team, 2020. Constraints on the timing of debris-covered and rock glaciers: An exploratory case study in the Hólar area, northern Iceland. *Geomorphology* 361, 107196.

13. Palacios, D., Ruiz-Fernández, J., Oliva, M., Andrés, N., **Fernández-Fernández, J.M.**, Schimmelpfennig, I., Leanni, L., González-Díaz, B., 2020. Timing of formation of neoglacial landforms in the South Shetland Islands (Antarctic Peninsula): Regional and global implications. *Quaternary Science Reviews* 234, 106248.
14. Oliva, M., Gómez-Ortiz, A., Palacios, D., Salvador-Franch, F., Andrés, N., Tanarro, L.M., **Fernández-Fernández, J.M.**, Barriocanal, C., 2020. Multiproxy reconstruction of Holocene glaciers in Sierra Nevada (south Spain). *Mediterranean Geoscience Reviews* 2, 5–19.
15. Pellitero, R., **Fernández-Fernández, J.M.**, Campos, N., Serrano, E., Pisabarro, A., 2019. Late Pleistocene climate of the northern Iberian Peninsula: New insights from palaeoglaciers at Fuentes Carrionas (Cantabrian Mountains). *Journal of Quaternary Science* 34 (4-5), 342–354.
16. Oliva, M., Palacios, D., **Fernández-Fernández, J.M.**, Rodríguez-Rodríguez, L., García-Ruiz, J.M., Andrés, N., Carrasco, R.M., Pedraza, J., Pérez-Alberti, A., Valcárcel, M., Hughes, P.D., 2019. Late Quaternary glacial phases in the Iberian Peninsula. *Earth-Science Reviews* 192, 564–600.
17. **Fernández-Fernández, J.M.**, Palacios, D., Andrés, N., Schimmelpfennig, I., Brynjólfsson, S., Sancho, L.G., Zamorano, J.J., Heiðmarsson, S., Sæmundsson, Þ., 2019. A multi-proxy approach to Late Holocene fluctuations of Tungnahryggssjökull glaciers in the Tröllaskagi peninsula (northern Iceland). *Science of the Total Environment* 664, 499–517.
18. Palacios, D., Gómez-Ortiz, A., Alcalá-Reygosa, J., Andrés, N., Oliva, M., Tanarro, L.M., Salvador-Franch, F., Schimmelpfennig, I., **Fernández-Fernández, J.M.**, Léanni, L., 2019. The challenging application of cosmogenic dating methods in residual glacial landforms: The case of Sierra Nevada (Spain). *Geomorphology* 325, 103–118.
19. Tanarro, L.M., Palacios, D., Andrés, N., **Fernández-Fernández, J.M.**, Zamorano, J.J., Sæmundsson, Þ., Brynjólfsson, S., 2019. Unchanged surface morphology in debris-covered glaciers and rock glaciers in Tröllaskagi peninsula (northern Iceland). *Science of the Total Environment* 648, 218–235.
20. Andrés, N., Palacios, D., Sæmundsson, Þ., Brynjólfsson, S., **Fernández-Fernández, J.M.**, 2019. The rapid deglaciation of the Skagafjörður fjord, northern Iceland. *Boreas* 48, 92–106.
21. **Fernández-Fernández, J.M.**, Andrés, N., 2018. Methodological Proposal for the Analysis of the Evolution of Glaciers Since the Little Ice Age and Its Application in the Tröllaskagi Peninsula (Northern Iceland). *Geographical Research Letters* 44, 69–97.
22. Andrés, N., Gómez-Ortiz, A., **Fernández-Fernández, J.M.**, Tanarro, L.M., Salvador-Franch, F., Oliva, M., Palacios, D., 2018. Timing of deglaciation and rock glacier origin in the southeastern Pyrenees: a review and new data. *Boreas* 47, 1050–1071.
23. **Fernández-Fernández, J.M.**, Palacios, D., García-Ruiz, J.M., Andrés, N., Schimmelpfennig, I., Gómez-Villar, A., Santos-González, J., Álvarez-Martínez, J., Arnáez, J., Úbeda, J., Léanni, L., Aumaître, G., Bourlès, D., Keddadouche, K., 2017. Chronological and geomorphological investigation of fossil debris-covered glaciers in relation to deglaciation processes: A case study in the Sierra de La Demanda, northern Spain. *Quaternary Science Reviews* 170, 232–249.
24. **Fernández-Fernández, J.M.**, Andrés, N., Sæmundsson, Þ., Brynjólfsson, S., Palacios, D., 2017. High sensitivity of North Iceland (Tröllaskagi) debris-free glaciers to climatic change from the ‘Little Ice Age’ to the present. *The Holocene* 27, 1187–1200.
25. Andrés, N., Tanarro, L.M., **Fernández, J.M.**, Palacios, D., 2016. The origin of glacial alpine landscape in Tröllaskagi Peninsula (North Iceland). *Cuadernos de Investigación Geográfica* 42, 341–368.
26. **Fernández Fernández, J.M.**, 2015. Aplicaciones de los sistemas de información geográfica en la reconstrucción paleoglacial: el caso de la Sierra Segundera (Zamora, España). *Geofocus* 1, 87–118.

Book chapters

1. Oliva, M., **Fernández-Fernández, J.M.**, Nývlt, D. (in press) Chapter 1. Introduction. In: Oliva, M., Nývlt, D., Fernández-Fernández, J.M. (Eds.) *Periglacial Landscapes of Europe*. Springer Nature.

2. Oliva, M., **Fernández-Fernández, J.M.**, Nývlt, D. (*in press*) Chapter 3. Periglacial Landforms Across Europe. In: Oliva, M., Nývlt, D., Fernández-Fernández, J.M. (Eds.) *Periglacial Landscapes of Europe*. Springer Nature.
3. Oliva M., Serrano, E., **Fernández-Fernández, J.M.**, Palacios, D., Fernandes, M., García-Ruiz, J.M., López-Moreno, J.I., Pérez-Alberti, A., Antoniades, D. (*in press*). Chapter 4. The Iberian Peninsula. In: Oliva, M., Nývlt, D., Fernández-Fernández, J.M. (Eds.) *Periglacial Landscapes of Europe*. Springer Nature.
4. **Fernández-Fernández, J.M.**, Etzelmüller, B., Morino, C., Sæmundsson, Þ. (*in press*) Chapter 15. Iceland. In: Oliva, M., Nývlt, D., Fernández-Fernández, J.M. (Eds.) *Periglacial Landscapes of Europe*. Springer Nature.
5. Oliva, M., **Fernández-Fernández, J.M.**, Nývlt, D. (*in press*) Chapter 16. The Periglaciation of Europe. In: Oliva, M., Nývlt, D., Fernández-Fernández, J.M. (Eds.) *Periglacial Landscapes of Europe*. Springer Nature.
6. Oliva, M., Andrés, N., **Fernández-Fernández, J.M.**, Palacios, D., 2022. Chapter 22. The evolution of glacial landforms in the Iberian Mountains during the deglaciation. In: Palacios, D., Hughes, P., García-Ruiz, J.M., Andrés, N. (Eds.) *European Glacial Landscapes: The Deglaciation*. Elsevier, pp. 201-208.
7. Oliva, M., Andrés, N., **Fernández-Fernández, J.M.**, Palacios, D., 2022. Chapter 39. The evolution of glacial landforms in the Iberian Mountains during the Bølling-Allerød Interstadial. In: Palacios, D., Hughes, P., García-Ruiz, J.M., Andrés, N. (Eds.) *European Glacial Landscapes: The Deglaciation*. Elsevier, pp. 369-377.
8. Oliva, M., Andrés, N., **Fernández-Fernández, J.M.**, Palacios, D., 2022. Chapter 57. The evolution of glacial landforms in the Iberian Mountains during the Younger Dryas Stadial. In: Palacios, D., Hughes, P., García-Ruiz, J.M., Andrés, N. (Eds.) *European Glacial Landscapes: The Deglaciation*. Elsevier, pp. 553-562.
9. Oliva, M., **Fernández-Fernández, J.M.**, Palacios, D., 2021. Chapter 17. The Iberian Peninsula (except for the Pyrenees). In: Palacios, D., Hughes, P., García-Ruiz, J.M. (Eds.) *European Glacial Landscapes: Maximum Extent of Glaciations*. Elsevier, pp. 129-123.
10. Oliva, M., **Fernández-Fernández, J.M.**, Palacios, D., 2021. Chapter 41. The Iberian Mountains: glacial landforms prior to the Last Glacial Maximum. In: Palacios, D., Hughes, P., García-Ruiz, J.M. (Eds.) *European Glacial Landscapes: Maximum Extent of Glaciations*. Elsevier, pp. 309-316.
11. Oliva, M., **Fernández-Fernández, J.M.**, Palacios, D., 2021. Chapter 60. The Iberian Mountains: glacial landforms from the Last Glacial Maximum. In: Palacios, D., Hughes, P., García-Ruiz, J.M. (Eds.) *European Glacial Landscapes: Maximum Extent of Glaciations*. Elsevier, pp. 473-480.
12. Oliva, M., Palacios, D., **Fernández-Fernández, J.M.**, 2021. Iberia: Land of the ancient glaciers. In: Oliva, M., Palacios, D., Fernández-Fernández, J.M. (Eds.). *Iberia, land of glaciers*. Elsevier, pp. 555-588.
13. Palacios, D., Oliva, M., **Fernández-Fernández, J.M.**, 2021. The impact of the Quaternary Ice Ages on the landscape. In: Oliva, M., Palacios, D., Fernández-Fernández, J.M. (Eds.). *Iberia, land of glaciers*. Elsevier, pp. 1-12.

Edition of books

1. Oliva M., Nývlt, D., **Fernández-Fernández, J.M.** (*in press*). *Periglacial Landscapes of Europe*. Springer Nature. 535 pp.
2. Oliva, M., Palacios, D., **Fernández-Fernández, J.M.**, 2021. *Iberia, land of glaciers*. Elsevier. 597 pp.

C.2. Research projects and grants

2019-2021 **NUNANTAR** - *Analysis of nunataks of the Antarctic Peninsula as multiproxy data sources on environmental change and climate dynamics*. Fundação para a Ciência e a Tecnologia, Portugal, 02/SAICT/2017 - 32002. PI: Marc Oliva. Universidade de Lisboa. 239 800 Euro.

- 2018-2020 **PALEOGREEN** - *Glacial oscillations and climate variability in NE Greenland*. Ministerio de Economía y Competitividad, Spain, CTM2017-87976-P. PI: Marc Oliva. Universitat de Barcelona. 235 000 Euro.
- 2017-2018 **CRONOANTAR** - *Glacial evolution in King George and Livingston Islands (Antarctica) since the Last Glacial Maximum based on cosmogenic nuclide dating and glacier surface reconstruction*. Ministerio de Economía y Competitividad, Spain, CTM2016-77878-P. PI: Dr Jesús Ruiz-Fernández. Universidad de Oviedo. 83 000 Euro.
- 2016-2020 **DEGLACIATION** - *El calentamiento de las montañas: geocronología y efectos ambientales de la deglaciación de las áreas de alta montaña*. Ministerio de Economía y Competitividad, Spain, CGL2015-65813-R. PI: David Palacios Estremera. Universidad Complutense de Madrid. 95 000 Euro.
- 2014-2016 *La evolución de la criosfera en las montañas mediterráneas*. Ministerio de Economía y Competitividad, Spain, EUIN2013-50924. PI: David Palacios Estremera. Universidad Complutense de Madrid. 25 700 Euro.
- 2013-2015 **CRYOCRISIS** - *Efectos medioambientales de la deglaciación: estudio de casos en ámbitos geográficos contrastados*. Ministerio de Economía y Competitividad, Spain, CGL2012-35858. PI: David Palacios Estremera. Universidad Complutense de Madrid. 128 700 Euro.

C.3. Internships abroad

- 2020 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (1.5 months).
- 2019 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (3 months).
- 2019 Spanish Polar Research Station "Juan Carlos I", Spanish National Research Council. Antarctica (0.5 months).
- 2018 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (2.5 months).
- 2017 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (1 month).
- 2016 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (1 month).
- 2015 Laboratoire National des Nucleides Cosmogéniques, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement. Aix-en-Provence, France (1 month).

C.4. Editorial work

Reviewer tasks for journals:

- Geomorphology
- Quaternary, Quaternary International, Quaternary Science Reviews
- Geographical Research Letters / Cuadernos de Investigación Geográfica
- Solid Earth
- Remote Sensing
- Heliyon

C.5. Memberships of scientific societies

- PYRN (Permafrost Young Research Network, International Permafrost Association).