

**Part A. PERSONAL INFORMATION**

**CV date**

29/06/2022

First and Family name	Romualdo Romero March		
Social Security, Passport, ID number	43068700-G	Age	52
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0002-9091-8688	
	SCOPUS Author ID (*)	8557387300	
	WoS Researcher ID (*)		

(\*) *Optional*

(\*\*) *Mandatory*

**A.1. Current position**

Name of University/Institution	Universidad de las Islas Baleares (UIB)		
Department	Departamento de Física		
Address and Country	Ctra. de Valldemossa, km 7,5. 07122 Palma de Mallorca (SPAIN)		
Phone number	971 173233	E-mail	<a href="mailto:romu.romero@uib.es">romu.romero@uib.es</a>
Current position	Catedrático de Universidad	From	05-12-2011
Key words	Atmospheric Dynamics, Numerical Prediction, Climatology		

**A.2. Education**

PhD, Licensed, Graduate	University	Year
Licenciado Ciencias Físicas	Universidad de las Islas Baleares	1993
Suficiencia Investigadora	Universidad de las Islas Baleares	1996
Doctor Ciencias Físicas	Universidad de las Islas Baleares	1998
Diploma Doctor Europeo	Universidad de las Islas Baleares	1999

**A.3. General indicators of quality of scientific production**

Number of six-year terms of research ("sexenios"): 4. Year of last one: 2018

PhD Theses supervised in the last 10 years: 3

Citations: 3365 (Scopus), 5251 (Google Scholar). H-index=33 (Scopus), 39 (Google Scholar)

Citations per year during the last 5 years (2017-2021): 260 (Scopus)

Publications included in JCR first quartile: 45 (Web of Science)

**Part B. CV SUMMARY** (max. 3500 characters, including spaces)

Except for his postdoctoral period at NOAA/NSSL in 1999-2000 and other shorter stays at Univ. of Wales, MIT (twice) and Politecnico di Milano, Romualdo Romero (Manresa, 1970) has developed his entire teaching and research career within the group that received him since he graduated in Physics in 1993 and where he was trained as a specialist in meteorology and climate of the Mediterranean: the Meteorology Group of the Department of Physics of the UIB (regional competitive group). He got the extraordinary doctorate award.

After his stay at the NSSL he rejoined the UIB as Assistant Professor, before promoting to Senior Lecturer in the area of Atmospheric Physics, until reaching at the age of 41 years the current category of Full Professor. This continuity of positions has allowed him to develop his research activity in an uninterrupted way, to implement in the UIB all the knowledge and techniques acquired abroad and to participate actively of the university teaching. Since the year 2000 he has been responsible for the theoretical and practical credits of various undergraduate and master/doctoral subjects. In the latter, which has the mention of quality, he has been responsible for subjects related to "Geophysical Fluid Dynamics", "Numerical Simulation in Geophysics" and "Application of Finite Volume Methods to Hyperbolic Problems". He has also collaborated with the postgraduate studies of other centers (e.g. UIMP/CSIC) teaching subjects on Climate Change. He has supervised 5 doctoral theses and 29 master

theses and Final Year Projects. He has been invited in numerous courses, seminars and conferences on topics related to his specialty: atmospheric numerical simulation, cyclogenesis, adverse weather phenomena, climate change, environmental impact and emergency management.

On the research side he has been involved in 38 projects and contracts, national and european, very diverse and in some cases clearly multidisciplinary. Recurrent aspects of his research are: Mediterranean meteorology, intense cyclones and severe convective phenomena, precipitation climatology, climate and climate change, numerical modeling, hydrometeorological forecasting and probabilistic prediction. He has led as IP 19 of such actions and has been a prominent member of the international networks MEDEX and HYMEX.

His research work has produced numerous publications in specialized international journals: (i) 86 articles included in the JCR, 45 of which pertaining to the first quartile (H-index 33 according to Scopus); (ii) 13 publications in other reference journals; and 44 contributions in books endowed with ISBN. He has carried out as regular or invited speaker more than 200 communications in national and international scientific conferences, activities organized by prestigious agencies or societies such as EGU, AMS, RSEF, AME, NOAA, AEMET and CSIC.

Prof. Romero's trajectory has merited: (i) 4 research periods or "sexenios"; (ii) The granting of 4 autonomic complements of "stimulation and recognition of the research activity" and 3 more of "stimulation and recognition of the research excellence and the transfer of knowledge" (he is a founding member of the spinoff MeteoClim Services S.L.); and (iii) the concession of 3 International Meteorology Awards, highlighting the Plinius Medal of the EGU.

## **Part C. RELEVANT MERITS** (*sorted by typology*)

### **C.1. Publications** (*10 most relevant in last 10 years*)

Carrió, D. S., A. Jansà, V. Homar, R. ROMERO, T. Rigo, C. Ramis, A. Hermoso, and A. Maimò, 2021:

Exploring the benefits of a Hi-EnKF system to forecast an extreme weather event. The 9th October 2018 catastrophic flash flood in Mallorca.

*Atmos. Res.*, DOI 10.1016/j.atmosres.2021.105917.

Argüeso, D., R. ROMERO, and V. Homar, 2020:

Precipitation features of the Maritime Continent in parameterized and explicit convection models.

*J. Climate*, **33**, 2449-2466.

ROMERO, R., M. Vich, and C. Ramis, 2019:

A pragmatic approach for the numerical prediction of meteotsunamis in Ciutadella harbour (Balearic Islands).

*Ocean Modelling*, DOI 10.1016/j.ocemod.2019.101441.

Cardell, M. F., R. ROMERO, A. Amengual, V. Homar, and C. Ramis, 2019:

A quantile-quantile adjustment of the EURO-CORDEX projections for temperatures and precipitation.

*Int. J. Climatol.*, **39**, 2901-2918.

ROMERO, R. and K. Emanuel, 2017:

Climate change and hurricane-like extratropical cyclones: Projections for North-Atlantic polar lows and medicanes based on CMIP5 models.

*J. Climate*, **30**, 279-299.

Tous, M., G. Zappa, R. ROMERO, L. Shaffrey, and P. L. Vidale, 2016:  
Projected changes in medicanes in the HadGEM3 N512 high-resolution global climate model.  
*Climate Dyn.*, **47**, 1913-1924.

ROMERO, R., C. Ramis, and V. Homar, 2014:  
On the severe convective storm of 29th October 2013 in the Balearic Islands: observational and numerical study.  
*Quart. J. R. Meteorol. Soc.*, **141**, 1208-1222.

Amengual, A., V. Homar, R. ROMERO, H. Brooks, C. Ramis, M. Gordaliza, and S. Alonso, 2014:  
Projections of heat waves with high impact on human health in Europe.  
*Glob. Planet. Change*, **119**, 71-84.

ROMERO, R. and K. Emanuel, 2013:  
Medicane risk in a changing climate.  
*J. Geophys. Res.-Atmos.*, **118**, 5992-6001.

Vich, M., R. ROMERO, E. Richard, P. Arbogast, and K. Maynard, 2012:  
Perturbing the potential vorticity field in mesoscale forecasts of two Mediterranean heavy precipitation events.  
*Tellus A*, **64**, 17224.

## C.2. Research projects (10 most relevant in last 10 years)

TRAMPAS: R+D in numerical modelling with a focus on Mediterranean extreme weather, energy and floods: The triangle-based regional atmospheric model (TRAM) & model for prediction across scales (MPAS) tandem. MICINN (PID2020-113036RB-I00). PI: R. Romero. Sep 2021-Aug 2024. 145,200 EUR.

EPICC: Response of western Mediterranean extreme precipitation to a changing climate. MICINN (PID2019-105253RJ-I00). PI: D. Argüeso. Oct 2020-Sep 2023. 157,300 EUR.

COASTEPS: Severe weather phenomena in coastal regions: Predictability challenges and climatic analysis. MINECO (CGL2017-82868-R). PI: V. Homar. Jan 2018-Dec 2020. 211,750 EUR.

REHIPRE: Simulating realistic high-resolution precipitation in the tropics. European community (H2020-MSCA-IF-743547). PI: D. Argüeso & R. Romero. Oct 2017-Sep 2019. 170,122 EUR.

METEOforSIM: Smart irrigation from soil moisture forecast using satellite and hydrometeorological modelling (SIM). MINECO (PCIN-2015-221) - Associated to International Initiative Water JPI-WaterWorks 2014. PI: R. Romero. May 2016-Nov 2019. 115,000 EUR.

PGRI-EPM: Prévision et gestion du risque d'inondation en l'Eurorégion Pyrénées Méditerranée. EURORÉGION "Ressource eau-Gestion des risques". PI: R. Romero (UIB subproject). Jan 2016-Dec 2017. 41,174 EUR (UIB).

EXTREMO: Future regional impacts of climate change associated to extreme weather phenomena. MINECO (CGL2014-52199-R). PI: R. Romero. Jan 2015-Dec 2018. 181,000 EUR.

PREDIMED: Improving short-range Mediterranean severe-weather forecasts by means of adaptive observations and advanced ensemble methods in MEDEX Phase II and HyMeX. MICINN (CGL2011-24458). PI: V. Homar. Jan 2012-Sep 2015. 244,420 EUR.

COST ACTION: Basic concepts for convection parameterization in weather forecast and climate models. European community (COST Action ES0905). PI: V. Homar (UIB subproject). Jan 2010-Dec 2014. 341,300 EUR (Total).

MEDICANES: Medicanes: meteorological environments, numerical predictability and risk assessment in the present and future climate. MEC (CGL2008-01271/CLI). PI: R. Romero. Jan 2009-Dec 2012. 233,499 EUR.

### **C.3. Contracts, technological or transfer merits** *(5 most relevant in last 10 years)*

TÉCNICAS: Diseño de técnicas satelitales ad hoc con inputs meteorológicos de alta especificidad (deterministas y probabilísticos) en el marco del proyecto PCI2018-093121. Universidad de Valencia. PI: R. Romero. Oct 2019-Oct 2020. 25,000 EUR.

W-ARTWEATHER: Trabajo de generación de campos de precipitación y otras observaciones meteorológicas combinando distintas fuentes de medición para el proyecto W-ARTWEATHER. Wireless DNA S.L. PI: R. Romero. Mar 2018-Feb 2020. 60,500 EUR.

PROCOE: Subyecto AVO: Analizar, Validar, Optimizar. Projecte coordinat d'R+D (C<sup>a</sup> d'Innovació, Recerca i Turisme, Govern IB) amb Meteoclim Services S.L. PI: V. Homar. Dec 2017-Dec 2020. 36,281 EUR (UIB).

ENTROPY: Asesoramiento en la vertiente atmosférica del proyecto Entropy Weather. Wireless DNA S.L. PI: V. Homar. Oct 2017-Aug 2018. 30,250 EUR.

SMART: Asesoramiento y valoración del proyecto Smart Global Weather. Meteoclim Services S.L. PI: V. Homar. Oct 2017-Aug 2018. 38,720 EUR.

### **C.4. Patents**

### **C.5. Other**

For full details, see: <http://meteorologia.uib.eu/ROMU/>