Javier González Corripio CV

January, 1965
Cantabrian Mountains, León, Spain
jgc@meteoexploration.com

Education

PhD University of Edinburgh, 1999 - 2002.

Modelling the energy balance of high altitude glacierised basins in the Central Andes plus Master in Meteorology (sit only).

Carnegie scholarship.

BSc (Honours) in Geography, First Class. University of Edinburgh, 1995 – 1999.

(Geomorphology, Biogeography, Environmental Monitoring and Change, Geology, Oceanography, Meteorology, expedition to Belize and to the Central Andes of Argentina)

Walton Memorial & Royal Geographical Society Prize for the best dissertation in Physical Geography submitted to a Scottish University, 1999. Plus other prizes.

Languages

Spanish: native.

English: Cambridge Proficiency in English (C2) plus eight years residence and study in the UK. English is everyday working language.

Good **French** oral communication and reading comprehension. One year residence in France.

Basic **Italian** and some **German**.

Relevant professional experience

2009 to present, director and developer of **meteoexploration.com,** company focused on provision of weather data and weather and snow related consultancy. Work regularly with satelite data (Sentinel, MODIS, Landsat, Meteosat) and radiative transfer codes (MODTRAN, insolation). We run regularly the mesoscale model WRF-ARW at high resolution for remote areas of the world (Antarctica, Patagonia, Himalayas, Alaska, etc.). Clients include Antarctic Logistic and Expeditions, CODELCO, Versar, etc.

Associated researcher at **Centro de Estudios Cientificos (CECs)**, Chile (www.cecs.cl)

External Senior Glaciologist in mining projects:

Pascua Lama
CODELCO Andina
Anglo American Los Bronces

Researcher at the **University of Innsbruck,** Faculty of Geo- and Atmospheric Sciences Lise Meitner Grant, 2007 - 2009. Fieldwork in the Cordillera Blanca.

Researcher at the Institute of Environmental Engineering, Water Resources Management Group, **Swiss Federal Institute of Technology. ETH, Zurich**, 2003 - 2006. Field work on Alpine glaciers.

One year scientific research visitor at the **Centre for Snow Research (CEN), Météo France**, working on modelling and monitoring snow redistribution by wind, remote sensing of the snow cover and improvements of radiative transfer within the snow model Crocus-Safran. ENSA Avalanche and mountain safety course in Chamonix. 2002-2003.

Work in cooperation with the French **IRD** and **Laboratoire de Glaciologie** for glacier monitoring.

Work in cooperation with the **Laboratorio de Glaciología** and **Centro de Estudios Científicos (CECS, Chile)** on Ice volcano interactions in the Andes of Southern Chile, 2005-2007. Field work in Patagonia.

Teaching experience at Master level at the **ETH** and in cooperation with the **EPFL** Lausanne 2005, 2006, 2008. Remote sensing of snow, snow hydrology, mountain meteorology. Guest editor HESS, Hydrological and Earth System Sciences, 8(6), 2004.

Teaching experience in summer courses at **Universidad Internacional Menendez Pelayo**, Ainsa, 2017.

Many technical translations from English into Spanish.

Grants

Royal Scottish Geographical Society Expedition Grant, 1998.

Carnegie Scholarship, 1999 – 2002.

Kodak grand for fieldwork in Corripio (2004).

Swiss National Science Funds Grant 2004 – 2007.

Lise Meitner Grant, Austrian FWF 2007-2009.

Computer literacy

I work regularly with Linux and shell scripting.

Python (see https://github.com/jgcmeteo/insolation and https://pypi.org/project/insolation/)

Python tools for georeferencing oblique photography (initally developed in IDL, see https://meteoexploration.com/en/monitoring/).

Python & Django (I developed all pages for https://meteoexploration.com).

R (I developed the insol package, see https://rdrr.io/cran/insol/man/insol-package.html).

Good knowledge of FORTRAN, IDL, javascript, html, Grads, GRASS, QGIS, ArcGIS, mysql, php, shell scripting.

Adobe Lightroom and Photoshop.

Good knowledge of Mac, Windows and related software, such as Office, Pages, Numbers, LibreOffice, etc.

Other

Member of the American Meteorological Society.

Dedicated photographer (Grand Prize Nikon Photo-contest, stock at Alamy, published photos) and keen telemarker.

Peer Reviewed Publications

Book chapters & proceedings

Corripio, J. G. and Purves, R. S.: 2004, Surface Energy Balance of High Altitude Glaciers in the Central Andes: the Effect of Snow Penitentes, in C. de Jong, D. Collins, and R. Ranzi (eds), *Climatea nd Hydrology in Mountain Areas,* Wiley & Sons, London. chapter 3, pp. 15–27.

Corripio, J. G., Purves, R. S. and Rivera, A.: 2007, Modeling climate-change impacts on mountain glaciers and water resources in the Central Dry Andes, in B. Orlove, E. Wiegandt and B. Luckman (eds), *Darkening Peaks: Glacier Retreat, Science, and Society*, University of California Press, Berkeley, pp. 126–135.

Journal articles

Corripio, J.G., Raso, L., 2020. Weather variables impact on COVID-19 incidence (preprint). *medRxiv*. https://doi.org/10.1101/2020.06.08.20125377

Corripio, J.G., López-moreno, J.I., 2017. Analysis and Predictability of the Hydrological Response of Mountain Catchments to Heavy Rain on Snow Events : A Case Study in the Spanish Pyrenees. *Hidrology* 4, 20. https://doi.org/10.3390/hydrology4020020

Crouzy, B., Forclaz, R., Sovilla, B., **Corripio, J.,** Perona, P., 2015. Quantifying snowfall and avalanche release synchronization: A case study. J*ournal of Geophysical Research: Earth Surface* 120. https://doi.org/10.1002/2014JF003258

Härer, S., Bernhardt, M., **Corripio, J.G.**, Schulz, K., 2013. PRACTISE – Photo Rectification And ClassificaTIon SoftwarE (V.1.0). *Geoscientific Model Development* 6, 837–848. https://doi.org/10.5194/gmd-6-837-2013

M. Dumont, Y. Arnaud, D. Six and **J.G. Corripio**.: 2009, Retrieval of glacier surface albedo using terrestrial photography. Détermination de l'albédo de surface des glaciers à partir de photographies terrestres. La Houille Blanche, 2, 102-108

Rivera, A., **Corripio, J. G.**, Brock, B., Clavero, J. and Wendt, J.: 2008, Monitoring ice capped active Volcán Villarrica in Southern Chile by means of terrestrial photography combined with automatic weather stations and GPS, J*ournal of Glaciology.* 54(88), 920-930.

Dadic, R., **Corripio, J. G.** and Burlando, P.: 2008, Mass-balance estimates for Haut Glacier d'Arolla, Switzerland, from 2000 to 2006 using DEMs and distributed mass-balance modeling, *Annals of Glaciology* 49, 22–26.

Pellicciotti, F., Helbing, J., Rivera, A., Favier, V., **Corripio, J.**, Araos, J., Sicart, J.-E. and Carenzo, M.: 2008, A study of the energy balance and melt regime on Juncal Norte glacier, semi-arid andes of central Chile, using melt models of different complexity, *Hydrological Processes.* 22(19): 3980.

Durand, Y, Guyomarc'h, G, Mérindol, L. **Corripio, J.G.** 2005 Improvement of a numerical snow drift model and field validation. *Cold Regions Science and Technology* 43 (2005) 93–103.

Corripio, J. G.: 2004, Snow surface albedo estimation using terrestrial photography, *International Journal of Remote Sensing* . 25(24), 5705–5729. pdf

Corripio, J. G., Durand, Y., Guyomarc'h, G., Mérindol, L., Lecorps, D. and Pugliése, P: 2004, Land-based remote sensing of snow for the validation of a snow transport model, *Cold Region Science and Technology*. 39(2-3), 93–104. pdf

Durand, Y., Guyomarc'h, G., Mérindol, L. and **Corripio, J. G.**: 2004, 2D numerical modelling of surface wind velocity and associated snowdrift effects over complex mountainous orography, *Annals of Glaciology,* 38, 59-70.

Strasser, U., **Corripio, J.**, Pellicciotti, F., Burlando, P., Brock, B. and Funk, M.: 2004, Spatial and temporal variability of meteorological variables at Haut Glacier d'Arolla (Switzerland) during the ablation season 2001: Measurements and simulations, *Journal of Geophysical Research-Atmospheres* 109(D3), D03103.

Corripio, J. G.: 2003, Vectorial algebra algorithms for calculating terrain parameters from DEMs and the position of the sun for solar radiation modelling in mountainous terrain, *International Journal of Geographical Information Science* 17(1), 1–23.

Corripio, J. G.: 2003, Modelling the energy balance of high altitude glacierised basins in the Central Andes. PhD thesis. University of Edinburgh, 2003.

Other publications

Guyomarc'h, G. and **Corripio, J**.: 2003, Suivi des zones de neige déplacées par le vent en haute montagne, *Neige et avalanche* (102). June 2003. ANENA, Grenoble.

Corripio, J. G.: 2001, Montañas de Escocia, in K. Betelu (ed.), *Grandes Montañas de Europa*, Desnivel, Madrid, chapter 7. (Mountains of Scotland in Great Mountains of Europe).

See google scholar: https://t.ly/Y3leG

See Research Gate: https://www.researchgate.net/profile/Javier-Corripio

See ORCID: https://orcid.org/0000-0001-6994-4913

Conferences and Workshops

EGU oral presentations in 2002, 2003, 2004, 2005, 2006, 2007, 2008

EGU session convener in 2004

AGU oral presentation in 2004, papers in many other sessions

AGM, Alpine Glaciological Meeting, 2003,2004, 2005, 2006 and papers in other sessions

GLIMS meeting, Oslo, 2004 and EGU, 2005

Workshop on Automatic Weather Stations on Glaciers IMAU, Pontresina 28 to 31 March 2004

Alpine Snow Workshop, Munich, 2006

Valdivia, Chile, 2006.

INRENA, Huaraz and Lima, Peru, 2008.

Sierra Nevada, Spain, 2008.

Cold Regions Snow Hydrology Workshop, Innsbruck, 2010.

CIMAS, I Congreso Internacional de las Montañas, Sierra Nevada 2018.

etc.