

Cédric Millot

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Google Scholar: [Cédric Millot](#)

Research interests

Mars, seasonal flows, thermal models, topography, slope errors

Education

University of Lyon Lyon, France
Ph.D. in planetary sciences September 2018 – Present
Subject: *Thermal properties of martian slopes.*
Supervisors: Professor C. Quantin-Nataf and Astronomer C. Leyrat.

University of Lyon – ENS Lyon Lyon, France
M.Sc., “Earth and Planets” September 2015 – June 2017
Research Internship: *Thermal Properties of Recurring Slope Lineae in Coprates Chasma, Mars.*
Supervisors: Professor C. Quantin-Nataf and Astronomer C. Leyrat.

University of Lyon – ENS Lyon Lyon, France
B.Sc. in Geosciences. September 2012 – June 2015

Publications

Assessing slope uncertainties on Mars’ Digital Elevation Models from numerical propagation of errors on synthetic geological surfaces

Millot, C., Quantin-Nataf, C., Leyrat, C., Lherm, V. and Volat, M.

ISPRS Journal of Photogrammetry and Remote Sensing, 2021. *In prep.*

Oxia Planum: The Landing Site for the ExoMars “Rosalind Franklin” Rover Mission: Geological Context and Prelanding Interpretation

Quantin-Nataf, C., Carter, J., Mandon, L., Thollot, P., Balme, M., Volat, M., Pan, L., Loizeau, D., **Millot, C.**, Breton, S., Dehouck, E., Fawdon, P., Gupta, S., Davis, J., Grindrod, P. M., Pacifici, A., Bultel, B., Allemand, P., Ody, A., Lozac’h, L. and Broyer, J.

Astrobiology, 2021.

Local Topography Effects on the Surface Temperatures on Mars - Application to the Case of Recurring Slope Lineae (RSL)

Millot, C., Quantin-Nataf, C. and Leyrat, C.

Icarus, 2021.

Variability of Spider Spatial Configuration at the Martian South Pole

Hao J., Michael, G. G., Adeli, S., Jaumann, R., Portyankina, G., Hauber, E., **Millot C.** and Zuschneid, W.

Planetary and Space Science, 2020.

Refining the Age, Emplacement and Alteration Scenarios of the Olivine-Rich Unit in the Nili Fossae Region, Mars

Mandon, L., Quantin-Nataf, C., Thollot, P., Mangold, N., Lozac'h, L., Dromart, G., Beck, P., Dehouck, E., Breton, S., **Millot, C.** and Volat, M.

Icarus, 2020.

Quantifying Widespread Aqueous Surface Weathering on Mars: the Plateaus South of Coprates Chasma

Loizeau, D., Quantin-Nataf, C., Carter, J., Flahaut, J., Thollot, P., Lozac'h, L. and **Millot, C.**

Icarus, 2018.

Conference papers

Assessing slope precision from numerical propagation of DEM (Digital Elevation Model) vertical errors

Millot C., Quantin-Nataf, C. and Leyrat C.

European Planetary Science Congress, EPSC2020-881. September 2020.

High Resolution Digital Elevation Model Errors Propagation on Computed Slopes

Millot, C., Quantin-Nataf, C., Leyrat, C. and Volat, M.

51st Lunar and Planetary Science Conference, March 2020.

Thermal Behaviour of Recurring Slope Lineae Areas in Palikir Crater

Millot C., Quantin, C., Leyrat, C. and Volat, M.

EPSC-DPS Joint Meeting 2019, EPSC-DPS2019-1945, September 2019.

Thermal Behaviour of Recurring Slope Lineae in Palikir Crater

Millot C., Quantin-Nataf, C., Leyrat, C. and Volat, M.

9th Mars Conference, July 2019.

Variability of araneiform spatial patterns at the Martian south pole

Hao, J., Michael, G., Adeli, S., Hauber, E., Portyankina, G., Jaumann, R. and **Millot, C.**

50th Lunar and Planetary Science Conference, March 2019.

A Post-Impact Volcanism Scenario for the Formation of the Olivine-Rich Unit in the Region of Nili Fossae, Mars

Mandon, L., Quantin, C., Thollot, P., Lozac'h, L., Mangold, N., Dromart, G., Beck, P., Dehouck, E., Breton, S. and **Millot, C.**

49th Lunar and Planetary Science Conference, March 2018.

Thermal Properties of Recurring Slope Lineae (RSL) in Coprates Chasma

Millot, C., Quantin-Nataf, C., Leyrat, C., Lozac'h, L. and Millet, F.

49th Lunar and Planetary Science Conference, March 2018.

Widespread Aqueous Surface Weathering South of Coprates Chasma, Mars.

Loizeau, D., Carter, J., **Millot, C.**, Flahaut, J., Quantin, C., Thollot, P. and Lozac'h, L.

47th Lunar and Planetary Science Conference, March 2016.

Teaching experience

Teaching assistant, Department of Biology (University of Lyon)

BIO2396M: Fall 2018 to 2020

Geographical Information Systems (GIS) and Spatial Data

Practical works on ArcGIS 10 software for 2nd year's Master students. The course presents advanced tools using remote sensing data applied to the field of biology.

Teaching assistant, Department of Biology (University of Lyon)

BIO1321M: Spring 2019 and 2020

Transversal Skills: Quality Management and Project Management

Practical works on ArcGIS 10 software for 1st year's Master students. The course is an overview of widely used GIS tools. Students have to complete a project in risk management using GIS software.

Teaching assistant, Department of Geosciences (University of Lyon)

STU1001L: Spring - Fall 2019

Geosciences

Tutorial rooms of main topics in geosciences (sedimentology, petrology, tectonic, seismology, planetary sciences, geophysics, geochemistry).

Public conferences

Public conference for the Open University of Lyon (in french).

Subject: "Martian climates: past and present."

24 February 2021, in remote.

Live for the Twitch channel "ConScience".

The goal of this live is to compare the model of Mars in the video game Minecraft with what we know about real Mars.

18 February 2021, in remote.

Public conference for the city of Vaulx-en-Velin in Planétarium de Vaulx-en-Velin (in french).

Subject: "What is the weather on Mars ?"

24 January 2019.

Public conference for the Open University of Lyon (in french).

Subject: "What is the weather on Mars ?"

6 November 2017.

Computing skills

Programming

Proficient in: Matlab, Fortran.

Familiar with: IDL.

Knowledge of SPICE/NAIF toolkits used on Matlab and IDL.

Softwares

ArcGIS, Quantum GIS.

Others

LaTeX, Shotcut (video editing software), Cubase (music editing software).

Languages

French (native), English (advanced), Spanish (basics).

Other interests

Music (guitarist for 21 years, part of choir as instrumentalist for 13 years and bands for several years), sports (strength training, handball), cinema and video games.