



eur PLANET 2024

Research Infrastructure

H2020-INFRAIA-2019-1

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Deliverable D10.8

Deliverable Title: Tutorial on Machine Learning and Basic How To's
Due date of deliverable: 31/07/2023
Nature¹: R
Dissemination level²: PU
Work package: 10
Lead beneficiary: INAF
Contributing beneficiaries: KNOW
Document status: Final

Start date of project: 01 February 2020
Project Duration: 54 months
Co-ordinator: Prof Nigel Mason, University of Kent

1. **Nature:** D

2. **Dissemination level:**

PU

Public Restricted to other programme participants (including the Commission Service)

PP

RE

Restricted to a group specified by the consortium (including the Commission Services)

CO

Confidential, only for members of the consortium (excluding the Commission Services)

Links to Tutorials for all scientific cases and ML techniques that have been used:

a. Mercury Surface Classification

https://github.com/eptn-ml/MESSENGER-Mercury-Surface-Classification-Unsupervised-DLR/blob/master/notebooks/mascs_classification_tutorial.md

b. ICME Detection

<https://github.com/eptn-ml/EPSC2021-ICME-workshop/blob/main/MachineLearningPipeline.ipynb>

c. Mercury Boundary Crossing

<https://github.com/eptn-ml/EPSC2021-MercuryBoundaries-workshop>

d. GMAP Deep Landforms

<https://github.com/eptn-ml/DeepLandforms/tree/main/Tutorial>

e. IAP Boundary Crossings

<https://github.com/eptn-ml/Tutorial-IAP-Boundaries/blob/main/IAP-Pipeline.ipynb>

f. Pits

https://github.com/dlecorre387/Pit-Topography-from-Shadows/blob/master/scripts/PITS_tutorial.ipynb

g. Chorus Wave Segmentation

<https://github.com/eptn-ml/Chorus-Wave/tree/main/notebooks>

h. GMAP mound detection

<https://github.com/eptn-ml/Workshop-GMAP>

i. Mars Dust Storm Segmentation (an extra case, not originally in the proposal)

Development in progress – expected by December 2023

j. Meteor Trajectories (an extra case, not originally in the proposal)

Development in progress – expected by December 2023

k. INAF spectral use case

Development in progress – expected by December 2023