



WITH



International remote sensing school for hydrological applications 2018

H SAF PRODUCTS APPLICATION

SOIL MOISTURE FOR HYDROLOGICAL RISK MANAGEMENT

Rome, Italy, 13th – 16th November 2018

TUESDAY 13 NOVEMBER

INTRODUCTION AND H SAF SOIL MOISTURE PRODUCTS

MORNING SESSION

- 09.00 - 09.15 **Welcome:** *H SAF Project Manager*
- 09.15 - 09.30 **Introduction to the SAF:** *EUMETSAT*
- 09.30 - 10.00 **Introduction to the H SAF:** *H SAF Management*
- 10.00 - 10.30 **Introduction to the user area:** *DPC*
- 10.30 - 11.00 **Introduction to the course:** *DPC*
- 11.00- 11.30** Coffee break
- 11.30 - 12.30 **Lecture 1 - Remote sensing of Soil Moisture (SM):** *TU Wien*
- 12.30 - 13.00 **Lecture 2 - H SAF Surface SM (SSM) products:** *TU Wien*
- 13.00 - 13.30 **Lecture 3 - H SAF Root-zone SM (RZSM) products:** *ECMWF*

13.30 - 14.30 Lunch

AFTERNOON SESSION

- 14.30 - 15.30 **Lecture 4 - Python for dummies:** *TU Wien*
- 15.30 - 16.30 **Exercise 1 – Download, use and visualization of H SAF SSM products:** *TU Wien*
- 16.30 - 16.45** Coffee break
- 16.45 - 17.45 **Exercise 2 - Download, use and visualization of H SAF RZSM products:** *ECMWF*
- 17.45 - 18.00 **Working Group (WG) definition:** *DPC*



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WEDNESDAY 14 NOVEMBER

DROUGHT MONITORING THROUGH H SAF SOIL MOISTURE PRODUCTS

MORNING SESSION

09.00 - 10:00 **Lecture 5 - Analysis of satellite SM time series:** *IRPI-CNR*

10:00 - 10.45 **Exercise 3 - Application of Lecture 4 in the WG basins:** *IRPI-CNR & CIMA*

10.45 - 11.15 **Coffee break**

11.15 - 12.30 **Lecture 6 - Analysis of satellite SM spatial patterns:** *CIMA*

12.30 - 13.15 **Exercise 4 - Application of Lecture 5 in the WG basins:** *CIMA & IRPI-CNR*

13.15 - 14.30 **Lunch**

AFTERNOON SESSION

14.30 - 15.15 **Lecture 7 - Drought through H SAF SM products:** *IRPI-CNR*

15.15 - 16.30 **Lab 1 – Drought monitoring through H SAF SM products**

16.30 - 17.00 **Coffee break**

17.00 - 18.00 **Lab 1 - Drought monitoring through H SAF SM products (continuation)**



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THURSDAY 15 NOVEMBER

FLOOD PREDICTION THROUGH H SAF SOIL MOISTURE PRODUCTS

MORNING SESSION

9.00 - 10:00 **Lecture 8 - Flood through H SAF SM products:** *IRPI-CNR*

10:00 - 10.45 **Exercise 5 - Modelled versus satellite SM:** *IRPI-CNR & CIMA*

10.45 - 11.15 Coffee break

11.15 - 12.30 **Lecture 9 – SM data assimilation for flood prediction:** *CIMA*

12.30 – 13.15 **Exercise 6 - SM data assimilation (nudging technique):** *CIMA & IRPI-CNR*

13.15 - 14.30 Lunch

AFTERNOON SESSION

14.30 - 15.15 **Lecture 10 – Importance of SM for flood prediction:** *IRPI-CNR*

14.30 - 16.30 **Lab 2 - Importance of SM for flood prediction**

16.30 - 17.00 Coffee break

17.00 - 18.00 **Lab 2 – Importance of SM for flood prediction (continuation)**



WITH



FRIDAY 16 NOVEMBER

WORKING GROUP PRESENTATION AND FINAL DISCUSSION

MORNING SESSION

08:30 - 09:00 **Organization of presentations by WGs**

09:00 - 11:00 **WG presentation**

11.00 - 11.30 Coffee break

11.30 - 12.30 **Discussion and feedback**

12.30 - 13.30 **Closure of the course**