Organization of the users hands-on session

Seppo
Ruben
Jenna

Introduction slides (in Google Drive)

20-25 minutes, 3-4 minutes for each slide

Introduction → Optical flow and extrapolation → Deterministic nowcasts → Ensemble nowcasts → Visualization tools → Verification tools → Blending with NWP

pysteps workflow:

- read the input time series
- use optical flow to estimate the advection field
- apply data transformations
- call the nowcast function
- write the output

- what method to use for what purpose?
- brief introduction to the differences of the methods with illustrations

- introduction to different visualization methods

- what metric to use for what purpose?

Exercises (assignments in GitHub + notebooks in Google Colab)

10 minutes
+
wrap-up (5 minutes)

Block 1: Setup

Setup Colab environment

Online session host:Jenna

Block 2: Reading, transforming and visualizing input data

Read and visualize input data

Data transformations

15 minutes
+
wrap-up (5 minutes)

Online session host: Ruben

Block 3: Optical flow and extrapolation

Optional exercise

Advection-based interpolation

Optical flow

Extrapolation

20 minutes
+
wrap-up (5 minutes)

Online session host:Jenna

Block 4: Nowcasting methods

Sequential blocks

1)

Compute and visualize deterministic nowcasts

Calculate and plot verification metrics

Export the output

2)

Compute and visualize ensemble nowcasts

Calculate and plot verification metrics

Export the output

35 minutes
+
wrap-up (5 minutes)

Online session host:Seppo

Block 5: Other pysteps functionality

Blending with NWP

15 minutes
+
wrap-up (5 minutes)

Online session host: Jenna