



DISPEC Training School  
21-25 September 2026 | CIHEAM-MAICh, Chania, Crete, Greece

Programme

| Time (EEST) | Monday, 21 September 2026                                                                                                                                      | Tuesday, 22 September 2026                                                                                                                                            | Wednesday, 23 September 2026                                                                                                                          | Thursday, 24 September 2026                                                                                                                        | Friday, 25 September 2026                                              | Time (EEST)                                                                                                                                                                                           |                                                                                                                                           |                                                                |                                                                                                                  |                           |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------|
| 9:00        |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 9:00                                                                                                                                                                                                  |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 9:15        | Walk in                                                                                                                                                        | Walk in                                                                                                                                                               | Walk in                                                                                                                                               | Walk in                                                                                                                                            | Walk in                                                                | 9:15                                                                                                                                                                                                  |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 9:30        |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  | 9:30                      |
| 9:45        |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | L1.1 Introductory lecture: Ionospheric disturbances and irregularities (interactions from above and below; ionospheric climatology and weather)   Anna Belehaki (NOA), Manuel Hernandez-Pajares (UPC) | L2.1 Ionospheric weather models: Electron Density Reconstruction   Ivan Galkin (BGD), Anna Belehaki (NOA), Manuel Hernandez-Pajares (UPC) | L3.1 Machine Learning: Basic theory   Kostas Koutroumbas (NOA) | L4.1 Spatio-temporal features of ionospheric maps   Manuel Hernandez-Pajares (UPC), German Olivares-Pulido (UPC) | Hackathon working session |
| 10:00       | 10:00                                                                                                                                                          |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 10:15       | 10:15                                                                                                                                                          |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 10:30       | 10:30                                                                                                                                                          |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 10:45       | 10:45                                                                                                                                                          |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 11:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 11:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 11:15       | Coffee break                                                                                                                                                   | Coffee break                                                                                                                                                          | Coffee break                                                                                                                                          | Coffee break                                                                                                                                       | Coffee break                                                           | 11:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 11:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 11:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 11:45       | L1.2 Ground-based and space-born monitoring systems, and data processing tools   Ivan Galkin (BGD), Manuel Hernandez-Pajares (UPC), Wojciech Jarmolowski (UWM) | L2.2 Signal propagation modelling (propagation effects and focus on HF propagation modelling)   Vincent Fabbro (ONERA), Xavier Baumann (ONERA), Ivan Galkin (BGD)     | L3.2 Utilisation of Machine Learning methods in Ionospheric Research   Maria Kaselimi (NOA), Kostas Koutroumbas (NOA)                                 | H4.1 Detection and characterisation of spatio-temporal features of ionospheric maps   Manuel Hernandez-Pajares (UPC), German Olivares-Pulido (UPC) | Hackathon working session                                              | 11:45                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 12:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 12:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 12:15       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 12:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 12:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 12:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 12:45       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 12:45                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 13:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 13:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 13:15       | Lunch break                                                                                                                                                    | Lunch break                                                                                                                                                           | Lunch break                                                                                                                                           | Lunch break                                                                                                                                        | Lunch break                                                            | 13:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 13:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 13:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 13:45       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 13:45                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 14:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 14:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 14:15       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 14:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 14:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 14:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 14:45       | H1.1 Data analysis tools: Ionogram Scaling & Identification of Ionospheric Structures   Ivan Galkin (BGD), Anna Belehaki (NOA)                                 | H2.1 Identification of ionospheric anomalies through the fusion of ionosonde & GNSS TEC data   Ivan Galkin (BGD), Anna Belehaki (NOA), Manuel Hernandez-Pajares (UPC) | H3.1 Ionospheric Time Series Forecasting   Maria Kaselimi (NOA), Kostas Koutroumbas (NOA), Anna Belehaki (NOA)                                        | Students Groups for Hackathon                                                                                                                      | Lecture on Open access publications   Karolina Wojtczak (EDP Sciences) | 14:45                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 15:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       | Hackathon working session                                                                                                                          |                                                                        | 15:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 15:15       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    | 15:15                                                                  |                                                                                                                                                                                                       |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 15:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    | Projects presentations                                                 | 15:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 15:45       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        |                                                                                                                                                                                                       |                                                                                                                                           |                                                                | 15:45                                                                                                            |                           |
| 16:00       | Coffee break                                                                                                                                                   | Coffee break                                                                                                                                                          | Coffee break                                                                                                                                          | Coffee break                                                                                                                                       | Coffee break                                                           | 16:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 16:15       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 16:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 16:30       | H1.2 Data analysis tools: RINEX-to-TEC & data curation   Manuel Hernandez-Pajares (UPC), Wojciech Jarmolowski (UWM)                                            | H2.2 Application of ray tracing models to ionogram modelling   Vincent Fabbro (ONERA), Xavier Baumann (ONERA)                                                         | H3.2 Identification of Ionospheric Irregularities with Machine Learning methods   Maria Kaselimi (NOA), Kostas Koutroumbas (NOA), Anna Belehaki (NOA) | Hackathon working session                                                                                                                          | Projects presentations                                                 | 16:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 16:45       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 16:45                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 17:00       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 17:00                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 17:15       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    | Closing sessions & certificates                                        | 17:15                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |
| 17:30       |                                                                                                                                                                |                                                                                                                                                                       |                                                                                                                                                       |                                                                                                                                                    |                                                                        | 17:30                                                                                                                                                                                                 |                                                                                                                                           |                                                                |                                                                                                                  |                           |