



# Attendance Certificate

MOOC Machine Learning in Weather & Climate

**Andres Leonardo Becerra Lopez**

has successfully completed

**Tier 1 – Machine Learning in Weather & Climate**

(up to 13 h 30 min)

January – April 2023

organised by  
the European Centre for Medium-Range Weather Forecasts (ECMWF)  
in partnership with  
the International Foundation Big Data and Artificial Intelligence  
for Human Development (IFAB)

Florence Rabier  
Director General of ECMWF

Francesco Ubertini  
President of IFAB and CINECA



**Module 1: Introduction to ML in Weather & Climate**  
up to 6 h

*Optional Modules*

**Module 2: Observations**  
up to 1 h

**Module 3: Forecast Model**  
up to 3 h 30 min

**Module 4: Data Assimilation**  
up to 30 min

**Module 5: Post-Processing**  
up to 1 h

**Module 6: Computing**  
up to 1 h 30 min