# List of Abbreviations

The list includes all terms that are introduced in the MOOC.

**AI:** Artificial Intelligence

**ALIA:** Average Leaf Inclination Angle

**ALG:** Atmospheric Look-up Generator

**APAR:** Absorbed Photosynthetically Active Radiation

**API:** Application Programming Interface

**ARTMO:** Automated Radiative Transfer Models Operator

**ARES:** Airborne Research Facility for the Earth System

**ASI:** Italian Space Agency

**AVIRIS-NG:** Airborne Visible Infrared Imaging Spectrometer – Next Generation

**$C_{ab}$:** chlorophyll a + b

**$C_{ar}$:** carotenoid

**CHIME:** ESA's Copernicus Hyperspectral Imaging Mission of the Environment

**DATimeS:** Decomposition and Analysis of Time Series software

**DLR:** German Space Agency

**DN:** Digital number

**EeTeS:** EnMAP end-to-end simulator

**EnMAP:** Germany's Environmental Mapping and Analysis Program

**ENVI:** Environment for Visualizing Images software

**ESA:** European Space Agency

**EU:** European Union

**EWT:** Equivalent Water Thickness

**FAO:** Food and Agriculture Organization of the United Nations

**FRA:** Global Forest Resources Assessment

**GFZ:** German Research Center for Geosciences (Potsdam)

**GIS:** Geographic Information System

**GSA:** Global Sensitivity Analysis

**ICRAF:** International Council for Research in Agroforestry

**LAD:** Leaf Inclination Angle Distribution

**LAI:** Leaf Area Index

**LCC:** Leaf Chlorophyll Content

LED: Light Emitting Diode

LiDAR: Light Detection and Ranging

LIDF: Leaf Angle Distribution Function

LULUCF: Land use, land use change and forestry

MIR: Mid infrared

MOOC: Massive open online course

NASA: National Aeronautics and Space Administration

NDI: Normalized Difference Index

NDVI: Normalized Difference Vegetation Index

NFIs: National Forest Inventories

NIR: Near-infrared

NN: Neural Networks

NPP: Net Primary Productivity

PCA: Principal Component Analysis

PLSR: Partial-least squares regression

PRI: Photochemical Reflectance Index

PRISMA: PRecursore IperSpettrale della Missione Applicativa

RF: Random Forest

RTM: Radiative Transfer Model

SAR: Synthetic-aperture radar

SBG: NASA's Surface Biology and Geology Investigation Mission

SPAD: Single-photon Avalanche Diode

SVM: Support Vector Machine

SWIR: Short wave infrared

TIR: Thermal infrared

TUB: Technical University of Berlin

UAV: Unmanned Aerial Vehicles

UV: Ultraviolet

VIS: Visible (light)

VNIR: Visible near-infrared