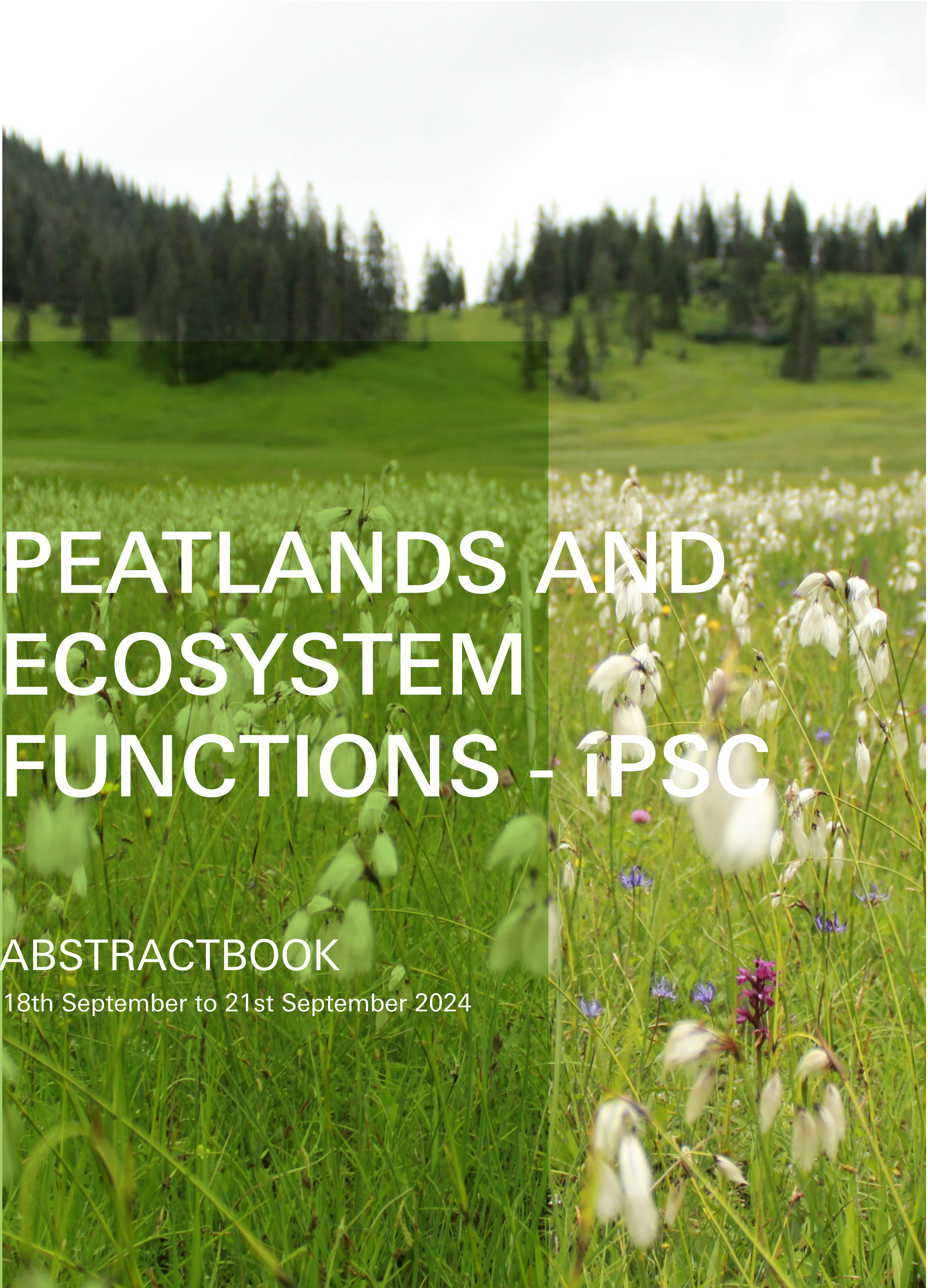
WEIHENSTEPHAN · TRIESDORF
University of Applied Sciences

Peatland
Science
Centre



PEATLANDS AND ECOSYSTEM FUNCTIONS - iPSC

ABSTRACTBOOK

18th September to 21st September 2024

Monitoring of GHGs flux dynamics at "le Viote" mountain peatland (Eastern Alps, Italy) under climate change pressure.

Laura Rubriante[1,2*], Damiano Gianelle[1], Dario Papale[3], Luca Belelli Marchesini[1]

[1] Forest Ecology Unit, Research and Innovation Centre, Edmund Mach Foundation, San Michele all'Adige, Italy
[2] Department of Innovation in Biological, Agri-Food and Forestry Systems (DIBAF), University of Tuscia, Viterbo, Italy
[3] Iret-Cnr (The Institute of Research on Terrestrial Ecosystems of the National Research Council)

*** Corresponding author**: laura.rubriante@fmach.it

This presentation focuses on the alpine peatland "le Viote" (46.01 N, 11.04 E, 1560 m asl), located at the centre of a plateau in the Mt. Bondone area, in the eastern Italian Alps (Figure), where the fluxes of methane (CH_4) and carbon dioxide (CO_2) between the peatland ecosystem and the atmosphere have been measured by chamber technique since summer 2024. The objectives of the current research activities are to analyse the spatial and temporal variability of both GHGs with special attention to CH_4 fluxes, considering the response to climatic drivers, the influence of peatland vegetation community types, hydrology and natural and anthropogenic disturbances history. These activities build on 10+ years of CO_2 fluxes monitoring by eddy covariance and a more limited dataset of CH_4 fluxes, providing a temporal background for detecting flux magnitude changes.

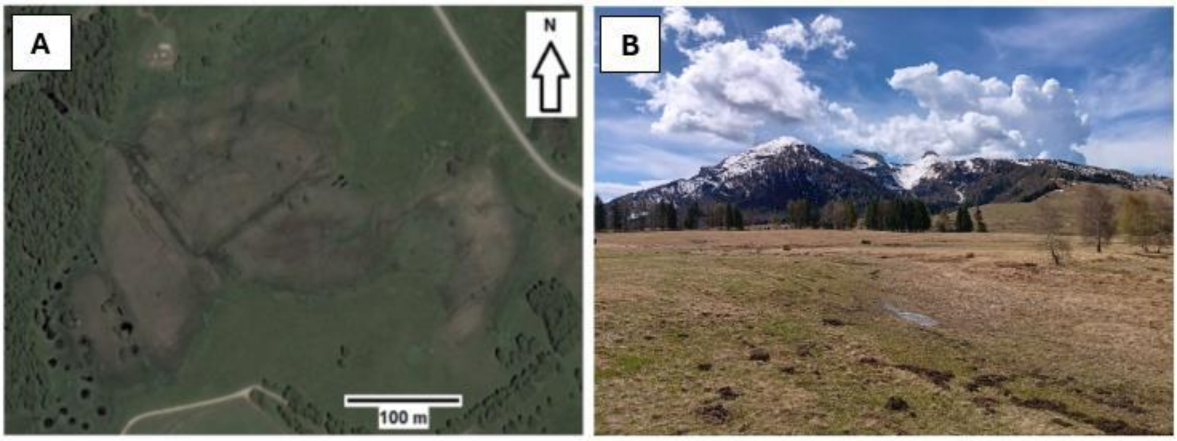


Figure: "Le Viote" peatland seen by satellite image from Google Earth (**A**) and in the field (**B**).