Name, University details and contact details

UNIVERSITY OF THE BALEARIC ISLANDS

DEPARTMENT OF EARTH SCIENCES – MEDhyCON Group (http://medhycon.uib.cat)

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Type of scientific work we are offering

We are working on assessing hydrological and sediment connectivity in contrasting Mediterranean catchments. MEDhyCON project intends to investigate changing patterns of hydrological and sediment connectivity changes in Mediterranean catchments by using a sediment budget assembled with several methods. **Hydrological models**, previously validated with **integrated sediment budgets**, are also used to anticipate the catchment response to these changes. Research is focused on three catchments in a decreasing a priori range of connectivity and increasing size: the small Sa Font de la Vila catchment (5 km^2) in the South-Western part of the Serra de Tramuntana and affected by wildfires, the Sant Miquel catchment (151 km^2) in the Serra de Tramuntana of Mallorca Island, and the agricultural Na Borges catchment (319 km^2) in the Central Depression of Mallorca Island. The catchments are intensely instrumented applying a nested approach. At each gauging station, **water stage, turbidity, conductivity and temperature are continuously measured and recorded using several sensors** linked to data-loggers to provide spatial and temporal information on the water, suspended- and dissolved-sediment yields.

Likewise, the MEDhyCON team also succeeds a transnational access project of the European Facility For Airborne Research-EUFAR. It is an Integrating Activity funded by the European Commission under FP7. The project are using **airborne hyperspectral, LiDAR, UAVs and Structure for Motion (SfM)** to improve process understanding by monitoring and modelling changing patterns of ecogeomorphological connectivity in post-fire management.

Possible duration for an STSM

A minimum of 15 days.

The best time to host an STSM in this institution

March-June 2016. Spring time is the best in Mallorca, avoiding the cold and the wet of winters and the hot of summer.