

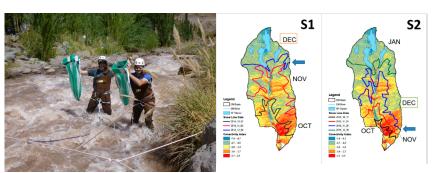
## Dipartimento di Fisica e Scienze della Terra

## EMAS PhD programme RESEARCH SEMINAR

Glacier melting runoff control on suspended and bedload sediment transport in glacierized Andean basin

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Suspended and bedload transport dynamics on rivers draining glacierized basins depend on complex processes of runoff generation together with the degree of sediment connectivity and

coupling at the basin scale. In this talk I presents a dataset of sediment transport dynamics in the Estero Morales, a 27 km<sup>2</sup> glacierfed basin in Chile where suspended sediment concentration (SSC) and bedload (BL) fluxes have been continuously monitored during two ablation seasons. Differences in volumes of transported sediments between the two seasons reveal contrasting mechanisms in the coupling dynamic of the sediment cascade, due to progressive changes of type and location of the main sources of runoff and sediments in the basin. These processes are changing in glacierized basins, with long-term consequences on the ecology and geomorphology of rivers.





Catchments and Coasts Research Group Department of Geography University of Lincoln (UK)