

MOLECULES IN THE MUD

HOW LIPIDS PRESERVED IN LAKE SEDIMENTS
CAN HELP US RECONSTRUCT ARCTIC PALEOCLIMATE

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The Arctic is warming rapidly, raising critical questions about the region's environmental and climate future. To address these questions, we can take the paleoclimate approach and look to the geologic past for clues about the future.

Lipids preserved in sedimentary archives provide a powerful tool for such reconstructions.

In this talk, I will showcase one such class of bacterial membrane lipids called **branched Glycerol Dialkyl Glycerol Tetraethers (brGDGTs)** which enable quantitative reconstructions of terrestrial temperature. I will demonstrate how brGDGT records can help address critical questions such as **Arctic greening** and evolving ocean circulation patterns and outline remaining challenges in their application.



FRIDAY
24 OCT 2025



09:30–10:30
CEST



Aula 2 Epsilon (ground floor)
Campus Scientifico via Torino 155, Venice



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