



## **A new paleotemperature record from Western Europe covering the last glacial/interglacial cycle**

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Understanding Holocene global temperature regional patterns is still a matter of active research and debate (e.g. Liu et al. 2014 PNAS). Proper quantitative reconstructions are hampered by the diversity of archives and proxies considered, especially on the continental realm. We propose a tetraether-based quantitative temperature record from Lake St Front, a Maar crater lake located in the eastern Velay region, West Europe (long. 3°E, lat. 45°N, alt. 1230 m, 600 m diameter and 5.5 m water depth). A 65 m thick sedimentary sequence was recovered in 1991 covering the full glacial/interglacial cycle, i.e. since Marine Isotope Stage 6 (Vlag et al. 1997 G. J. Int). A new coring operation conducted in 2016 provided a 10 m thick sequence of organic gyttja covering the last deglaciation and the Holocene.

As a first step, we will describe the modern tetraether distribution in lake surface sediments as well as its watershed in order to check the reliability of the proxy and to identify possible biases. The measured paleotemperatures will then be assessed and compared to nearby records in order to conclude on regional climatic patterns.