

Methane Emission in Lake Baikal

Rationale of workshop

In Lake Baikal, a **UNESCO World Heritage Site**, numerous sites of focused methane-rich fluid emissions at deep water depths (400 – 1400m) have been discovered the last 15 years. These deep lake-bottom emissions are unique mineralogical and biological sites (gas hydrates, carbonates, rare ecosystems), but they also pose a risk for the escape into the atmosphere of this greenhouse gas and for the triggering of underwater landslides. Since 2014, a bilateral France-Russia collaboration focuses on these methane emission sites with the objective to better quantify fluxes of matter and the abundance of gas hydrates and to understand the geological control over the location of its emissions.

At the workshop we will try to make a **state of the art on methane migration from sediments to water** column, make a comparison with oceans and discuss the challenges for the future. Main themes that will be discussed on the workshop are the **amount of methane** involved, the role of **buffer systems** (gas hydrates, diagenesis, microbiological activity) and the sensitivity of these systems.

Workshop organisation

Principal organizer: Jeffrey Poort, ISTeP (Sorbonne Université/CNRS)
Co-organizers: Oleg Khlystov, Limnological Institute (Siberian Branch of R.A.S.)
Giovanni Aloisi, Institut Physique du Globe Paris & CNRS

Where and when

Tour Zamansky 24th floor, Campus Pierre et Marie Curie, 4 place Jussieu, Paris
September 25 & 26, 2018 (Tuesday & Wednesday) : start at 9h30

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