



## **Analysis of the atmospheric transport during MAGICS campaign and constraints on methane emissions from hydrates in Svalbard**

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The MAGIC campaign, a collaboration between the MOCA and MAMM projects took place in Lapland and Svalbard during the summer of 2014. An extensive set of measurements was performed including airborne and ship-borne methane concentrations, complemented with the nearby monitoring site at Zeppelin mountain. In order to assess the atmospheric impact of emissions from seabed methane hydrates, a suite of atmospheric transport analysis tools based on the Lagrangian model FLEXPART was developed. We present a characterisation of the local and long range transport during the campaign applied to the estimate of oceanic emissions and discuss the uncertainties associated with the methodology.