

# Estimating the salinity of subglacial lakes from aerogeophysical data

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The widespread occurrence of more than 145 lakes underneath the Antarctic ice sheet demonstrates that these aquatic ecosystems are an important part of the subglacial hydrosphere. The recent discovery of water flux between subglacial lakes beneath the East and West Antarctic ice sheet on timescales of several years indicates interconnectedness within the subglacial hydrological network and the potential for catastrophic drainage into the ocean. Subglacial lakes are now being recognized as an integral part of the global cryosphere and the global climate system. Knowledge of the physical, chemical and biological processes operating within these features is crucial for addressing questions about the presence and functioning of life in subglacial lakes. However, little is known about the prevailing *in situ* environmental conditions. Existing airborne ice-penetrating radar and laser altimeter data over large subglacial lakes can be used to estimate the salinity without penetrating the lakes.