

***Institute for Advanced Studies, Benjamin Meaker Visiting Professor Public Lecture,
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Subglacial lake exploration: A new frontier in the cryosphere

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Subglacial lakes are part of the extensive hydrologic systems that lie beneath ice caps and ice sheets. They vary in size from 0.02 km³ (Chew Magna Reservoir) to 5000 km³ (the size of Lake Ontario). Their existence has been known for decades, but only recently have these lakes been accessed using clean drilling techniques to reveal ecosystems powered by energy derived from geologic sources beneath the ice masses. These subglacial lakes and the ecosystems they host are of significant interest to scientists from a number of disciplines, including the planetary science community, as they are perhaps one of the best earthly analog systems for the ice-covered oceans on the moons of Jupiter and Saturn, Europa and Enceladus. The presentation will provide an overview of subglacial lake exploration, including results from recent subglacial lake drilling projects in Antarctica and Iceland, and will discuss plans for an upcoming subglacial lake drilling project in Antarctica in 2018/19.

<http://www.bristol.ac.uk/ias/diary/2017/ias-bmvp-mark-skidmore-public-lecture---subglacial-lake-exploration.html>