1. PROJECT

This model code was compiled as part of Sammie Buzzard's Doctoral work, funded by the National Environment Research Council Doctoral Training Grant NE/J500082/1.

2. DATASET

Title: A Mathematical Model of Melt Lake Formation on an Ice Shelf
Description: The matlab files contained here comprise a 1-D mathematical model of a surface melt lake on an idealised ice shelf. The model incorporates a calculation of the surface energy balance of an ice shelf, heat transfer through the upper ice shelf, the production and percolation of meltwater into the firn, the formation of ice lenses in the firn and the formation, development and refreezing of surface melt lakes on the ice shelf.

The model is described in detail in Buzzard et al. 2018 (Journal of Advances in Modeling Earth Systems).

This model was created using Matlab_R2015a

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3. TERMS OF USE
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4. CONTENTS

All Matlab files are contained in Model_Code.zip
ModelDescription.pdf explains how the files comprise the model