Background

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Introduction

In this report, we will explore the various factors that influence *fluid dynamics* in glaciers and how they contribute to the formation and behavior of these natural structures.

- 1. The climate
 - Temperature
 - Precipitation
- 2. The topography
- 3. The geology

Glaciers as the one shown in will cease to exist if we don't take action soon!



Glaciers form an important part of the earch's climate system.

Methods

We follow the glacier melting models established in [1].

The equation $Q = \rho Av + C$ defines the glacier flow rate.

The flow rate of a glacier is defined by the following equation:

$$Q = \rho A v + C$$

The flow rate of a glacier is given by the following equation:

$$Q = \rho A v + \text{time offset}$$

Total displaced soil by glacier flow:

$$7.32\beta + \sum_{i=0}^{\nabla} \frac{Q_i}{2}$$

Total displaced soil by glacier flow:

$$7.32\beta + \sum_{i=0}^{\nabla} \frac{Q_i(a_i - \varepsilon)}{2}$$

$$v \coloneqq \begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix}$$

$$a \rightsquigarrow b$$

1. Introduction

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1.1. Background

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1.2. Methods

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2 Introduction

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2.a Background

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2.b Methods

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This report is embedded in the ArtosFlow project. ArtosFlow is a project of the Artos Institute.

Bibliography

[1] R. Hock, "Glacier melt: a review of processes and their modelling," *Progress in Physical Geography: Earth and Environment*, vol. 29, no. 3, pp. 362–391, 2005, doi: 10.1191/0309133305pp453ra.