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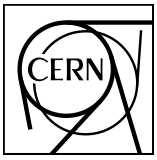

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Test-beam performance of a tracking TRD prototype

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Abstract

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1 Introduction

To optimally reject the combinatorial background while preserving the interesting signal from the data, sophisticated selections exploiting a Machine-Learning (ML) algorithm, trained to distinguish among prompt $\mathrm{D_s^+}$, non-prompt $\mathrm{D_s^+}$, and the combinatorial background, were applied.

The biological effect of radiation depends on the quality of the radiation as well as on the amount of energy absorbed. Evidence suggests that this quality dependence is primarily caused by the differences in rates of energy loss [1–2]. The general criteria that have been used are:

(i) to terminate the iteration when the residue between iterated and experiment values is of the order of experimental errors [1, 3–6]

(ii) to terminate when the smoothest solution has been obtained.

For an overall appreciation of the work carried out in this field, see Refs. [7] and [8].

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

- The climate
  - Temperature
  - Precipitation
- The topography
- The geology

Glaciers as the one shown in **Fig.** 1 will cease to exist if we don't take action soon!

Fig. 1: *Logo* for the ALICE experiment at CERN.

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

$$Q = \rho A v + C \tag{1}$$

Total displaced soil by glacial flow:

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

$$v \coloneqq \begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix} \tag{3}$$

2 Background

In the case of glaciers, fluid dynamics principles can be used to understand how the movement and behaviour of the ice is influenced by factors such as temperature, pressure, and the presence of other fluids (such as water).

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$$x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{4}$$

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2.1 In this paper

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Fig. 2: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aeque doleamus animo, cum corpore dolemus, fieri.

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2.1.1 Contributions

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3 Related Work

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$$y = kx + d \tag{5}$$

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A	B	C
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

Table 1: This is a custom table

Appendix

A Construction on a flat site

A.1 General considerations

Following on ECFA recommendation, the project described in this report is based on the assumption that the machine is built close to the present CERN site, and has been taken into account in the cost estimate.

A.2 Effects on the construction

The general layout of the machine would be very similar to that shown in the main body of the report.

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