Example title

Group Name Author 1, Author 2 December 6, 2022









Abstract

Enter a short summary here. What topic do you want to investigate and why? What experiment did you perform? What were your main results and conclusion?

1 Introduction

Please, be careful about paragraph separation: double backslash (\\) is used to break the line without spacing, and should be used only to break a single, long paragraph. Instead, to create a new paragraph two line breaks should be used.

This is, for example, a new, properly spaced paragraph (you can see the indentation at the beginning). Remember you can put references to external sources, in particular scientific articles or websites. To cite a source, you need to add the reference to the "biblio.bib" file in the Bibtex format, which lists the main information about the source. Since writing a Bibtex reference manually can be long, you can usually find the whole Bibtex reference on the internet, for example in the IEEE or ACM websites. Google is always a good source. In general, the procedure to cite a new source is:

- 1. find the Bibtex reference (if any)
- 2. copy or manually write it into the "biblio.bib" file
- 3. give it a label you like (in this example, you can see "vantage" or "sandy_slides"), provided it is *unique*
- 4. use it throughout the text, with the \cite directive: for example, [2] or [1]

The list of referenced sources will appear at the end of the report.

2 Section 1

In the following, Equation (1) shows an example of equation centered within the page.

maximize
$$\sum_{i=17}^{31} \sum_{j=i+1}^{32} \left[x_{i,j} \times s_{i,j} + (1 - x_{i,j}) \times d_{i,j} \right]$$
 (1)

To type any mathematical expression in the text without breaking the line, you can surround it with the \$ symbol, for example to refer to i and to $\sum_{j=i+1}^{32} [x_{i,j} \times s_{i,j} + (1-x_{i,j}) \times d_{i,j}].$

If you need to show code snippets, you can use the *listing* environment, as in the following example. As for the other elements, you can refer to a listing through its label as in algorithm 1. Remember to make your code well readable by indenting it and using concise pseudo-code snippets, without pasting your own code as it is (unless it is REALLY expressive and short).

Algorithm 1 Example of code snippet

```
1 globaldata: list_head buddies [MAX_ORDER] [MAX_COLORS]
3 procedure InsertBuddy (buddy b, order ord)
    buddy twin
5
    mcolor mcol
6
7
    mcol = Mcolor(b, ord)
8
    twin = GetTwinBuddy(b, ord)
9
     if ord < MAX_ORDER-1 AND BuddyIsFree(twin)
10
       RemoveFromList (buddies [ord] [Mcolor (twin, ord)])
11
       b = CoalesceBuddy(b, twin, ord)
12
       InsertBuddy(b, ord+1)
13
       return
14
       InsertHead (buddies [ord] [mcol], b)
15
16 end procedure
```

2.1 Subsection 1

This is the way to refer to Figure 1, and similarly for Section 2. You will notice LATEX freely moves elements like figures and tables around the page, and often in the pages around the current paragraph. In particular, LATEX always places these elements at the bottom or top of the page (otherwise instructed): this choice obeys to the main typesetting guidelines, and should work well most of the times. You should not force a specific position for these elements, and keep in mind that LATEX most of the time is right (it is its job to do lay out elements, not yours). If you need to move an element, move its LATEX code up or down.

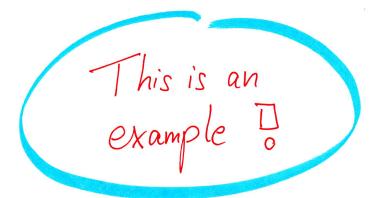


Figure 1: Example caption.

Table 1: Table title (without stop!)

label0	label1	label2
row 0, col 0	row 0 , col 1	row 0 , col 2
row 1, col 0	row 1, col 1	row 1, col 2
row 2, col 0	row 2 , col 1	row 2, col 2
row 3, col 0	row 3, col 1	row 3, col 2

2.2 Subsection 2

Table 1 provides an example of a table. According to many people, this table style (without vertical lines separating columns) is the most elegant and clean possible; to set this tables style, this document adds the \usepackage{booktabs} directive at the beginning. In the LATEX code, you can notice that an ampersand (\$) separates columns and a double backslash (\\) moves to a new line.

Since tables in L^AT_EX are verbose, you should:

- place them in a specific file, to be included with a \input{filename} directive
- for large tables, fill them on applications or websites like https://www.tablesgenerator.com/, then copy their code and paste it in the dedicated file; finally, you can customize the style from the LATEX code

Here you can see the same table as before but included from an external file *table.tex*: the result is the same.

Table 2: Table title (without stop!)

label0	label1	label2
row 0, col 0	row 0 , col 1	row 0 , col 2
row 1, col 0	row 1, col 1	row 1, $col 2$
row 2, col 0	row 2 , col 1	row 2 , col 2
row 3, col 0	row 3, col 1	row 3, col 2

References

- [1] Oded Lempel. 2nd Generation Intel Core Processor Family: Intel Core i7, i5 and i3. 2011. URL: http://www.hotchips.org/wp-content/uploads/hc_archives/hc23/HC23.19.9-Desktop-CPUs/HC23.19.911-Sandy-Bridge-Lempel-Intel-Rev%5C%207.pdf.
- [2] Daniel Sanchez and Christos Kozyrakis. "Vantage: Scalable and Efficient Fine-Grain Cache Partitioning". In: *Proc. of ISCA*. 2011.