



FULL TITLE OF THE REPORT

Month 2023

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Name of the Author

XYZ Competence Centre etc.

SUPERVISOR(S):

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First Name Family Name





PROJECT SPECIFICATION



Your Project Specification goes here.





ABSTRACT

Abstract of your Report.



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1 INTRODUCTION

Hello world! If you are one of those exceptional minds that does not like to use Word, please be welcome and use this L^AT_EXtemplate for your project report! A preview of you face in this exact moment is presented in Figure 1. More information is available for instance at https://www.overleaf.com/learn/latex/Inserting_Images.



Figure 1: Example of a figure from Ref. [2]

A. MORE

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B. EVEN MORE

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i. More more, maybe?

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ii. This is really the last one

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

2 MORE BUT BIGGER

Another section. Custom environment `longlisting` used in Listing 1 enables page breaks within the code snippet.

A. ABOUT LISTINGS

More information on code snippets is available for instance at:

- https://www.overleaf.com/learn/latex/Code_Highlighting_with_minted,
- [minted package documentation](#).

```
import numpy as np

def incmatrix(genl1,genl2):
    m = len(genl1)
    n = len(genl2)
    M = None #to become the incidence matrix
    VT = np.zeros((n*m,1), int) #dummy variable

    #compute the bitwise xor matrix
    M1 = bitxormatrix(genl1)
    M2 = np.triu(bitxormatrix(genl2),1)

    for i in range(m-1):
        for j in range(i+1, m):
            [r,c] = np.where(M2 == M1[i,j])
            for k in range(len(r)):
                VT[(i)*n + r[k]] = 1;
                VT[(i)*n + c[k]] = 1;
                VT[(j)*n + r[k]] = 1;
                VT[(j)*n + c[k]] = 1;
```





```

if M is None:
    M = np.copy(VT)
else:
    M = np.concatenate((M, VT), 1)

VT = np.zeros((n*m,1), int)

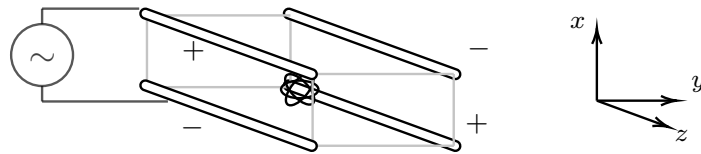
return M

```

Listing 1: Example code snippet [1]. `minted` package is required to compile it.

B. USE LATEX BEAUTIFUL FEATURES

Unlike Word, you can do very fancy stuff with \LaTeX . Please enjoy a vector sketch of a Paul trap...



... or this stunning Lindblad equation

$$\dot{\rho} = \frac{i}{\hbar}[\rho, H] + \sum_j \gamma_j \left(L_j \rho L_j^\dagger - \frac{1}{2} \{ L_j^\dagger L_j, \rho \} \right) \quad (1)$$

REFERENCES

- [1] Dummy author. *Some title*. URL: https://www.overleaf.com/learn/latex/Code_Highlighting_with_minted (visited on 09/30/2010).
- [2] Yourself. “Your face”. In: *Journal 1* (2023). DOI: [10.X/](https://doi.org/10.X/).

More information on bibliography is available for instance at https://www.overleaf.com/learn/latex/Bibliography_management_with_biblatex.