

[h]



# ID2090 : Introduction to Scientific Computing

Dhaval Raghvani

BE19B027

July 9, 2021

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Analysis</b>	<b>3</b>
2.1	More analysis . . . . .	3
2.1.1	A minor point . . . . .	4
<b>3</b>	<b>Conclusions</b>	<b>4</b>

## List of Figures

1	<i>Indian Institute of Technology, Madras</i> . . . . .	1
2	The second image we inserted in the document . . . . .	3
3	Flow of liquid between two vertical plates . . . . .	3

## List of Tables

1	The second table I entered in the document . . . . .	4
2	The first table I entered in the document . . . . .	4

## 1 Introduction

This is my first course in Scientific computing. It was an eye-opening course and blessed to learn this course under the guidance of the Professor *Dr. Gandham Phanikumar!* Here is an example of an inline equation showing  $\alpha = \beta + \gamma^2$ .

In this document we have equation 1 talking about how summation is represented. Also, we have equation 2 showing how integration is represented [Dewar et al., 1985].

In this document we have table 2 which is the first table we entered in the document. We inserted one more table 1 in this document just to check automatic numbering [Bernevig et al., 2006].

$$\phi_n = \sum_{n=0}^{n=\infty} \Omega_n \quad (1)$$

Let us see if inline equation looks fine

$$\zeta_x = \int_{n=0}^{n=x} \omega_n dn \quad (2)$$

## 2 Analysis

1. First item
  - (a) First sub item
  - (b) Second sub item
2. Second item

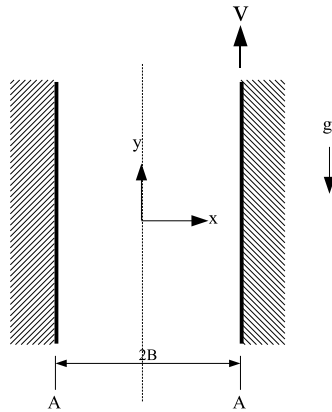


Figure 1: The second image we inserted in the document

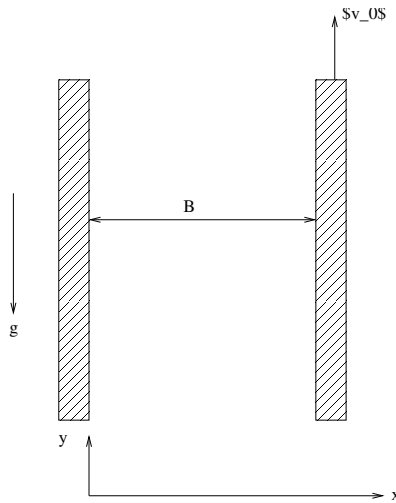


Figure 2: Flow of liquid between two vertical plates

### 2.1 More analysis

This is an example for a very long line which may or may not fit in a single line but let us see if it will wrap up in the final output rendered by latex. In figure 3 we can see the domain for the problem of flow between two vertical plates. The arrows indicate vectors for the body force terms. In figure 2 we have inserted one more image.

header-1	header-2
row-1-col-1	row-1-col-2
row-2-col-1	row-2-col-2

Table 1: The second table I entered in the document

row-1-col-1	row-1-col-2
row-2-col-1	row-2-col-2
row-3-col-1	row-3-col-2
row-4-col-1	row-4-col-2

Table 2: The first table I entered in the document

### 2.1.1 A minor point

You can have only a depth of sub-sub-section in article environment but that suffices for articles.

## 3 Conclusions

- One item
- Another item
- Yet another item

## References

- [Bernevig et al., 2006] Bernevig, B., Hughes, T., and Zhang, S.-C. (2006). Quantum spin hall effect and topological phase transition in hgte quantum wells. *Science*, 314(5806):1757–1761. cited By 4201.
- [Dewar et al., 1985] Dewar, M., Zoebisch, E., Healy, E., and Stewart, J. (1985). Am1: A new general purpose quantum mechanical molecular model1. *Journal of the American Chemical Society*, 107(13):3902–3909. cited By 14688.