Sample AIAA Conference Paper

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and

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This is an example of using the NASA-Latex-Docs template. This flexible LaTeX template is designed to separate content from styling and remove all of the grunt work associated with creating professional documents. This is just a sample of what the output will look like. Please reference the NASA-Latex-Docs Github wiki for more information and usage guides.

Nomenclature

I_{sp} = specific impulse
m_0 = initial total mass, including propellant
m_f = final total mass, dry mass
v = velocity of the rocket
v_e = exhaust velocity

I. Introduction

Please reference the NASA-Latex-Docs Github wiki[1] for more information and usage guides.

II. Lip Sum Text

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*Author #1 Position and E-Mail Address
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III. Sample Figures

Fig. 1 is an example image using the `figure` environment.

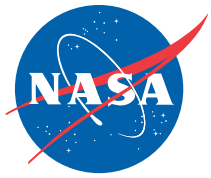
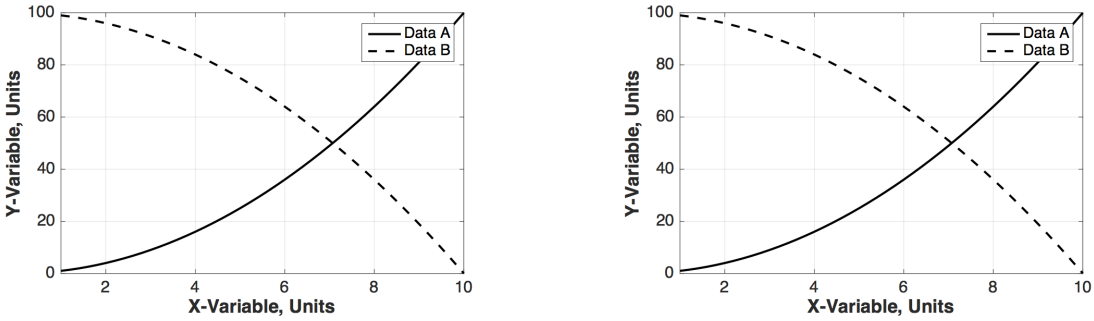


Figure 1. This is an Example of Inserting a Figure

1. Side by Side Figures - One Caption



(a) Left Graph **(b) Right Graph**

Figure 2. This is an Example of Inserting Sub-Figures

IV. Sample Tables

Creating simple, elegant, tables is easy to accomplish in LaTeX :

Table 1. This is an example of a LaTeX table

Main Item 1	Main Item 2	Main Item 3
Value Item 1	Value Item 2	Value Item 3
Value Item 1	Value Item 2	Value Item 3

A. Table with Multiple Columns

To create multiple columns, use the `\multicolumn` command:

Table 2. LaTeX table with a multiple column entry

Main Item 1	Main Item 2	Main Item 3
Multiple Column Entry		Value Item 3
Value Item 1	Value Item 2	Value Item 3

B. Table with Multiple Rows

To create multiple rows, use the `\multirow` command:

Table 3. LaTeX table with a multiple row entry

Main Item 1	Main Item 2	Main Item 3
Multiple Row Entry	Value Item 2	Value Item 3
	Value Item 2	Value Item 3

V. Sample Equations

LaTeX is fantastic for creating equations, as seen in Eq. 1. Equation 1 is the Tsiolkovsky rocket equation describing the basic principles of rocket motion. LaTeX can also be used for in-line equations. In this equation the exhaust velocity, v_e, can be expressed as $v_e = I_{sp}g_0$ where I_{sp} is the specific impulse and g_0 is the standard gravity.

$$\Delta v = v_e \ln \frac{m_0}{m_f} \tag{1}$$

VI. Sample Lists

A. Bulleted List (`itemize` environment)

- The first item
- The second item
- The third item

B. Enumerated List (`enumerate` environment)

1. The first item
2. The second item
3. The third item

C. Description List (`description` environment)

First: The first item

Second: The second item

Third: The third item

D. Nested List

List environments can also be nested and combined:

1. The first item
    - The first sub-item
    - The second sub-item
2. The second item
3. The third item

VII. Sample TikZ Graphics

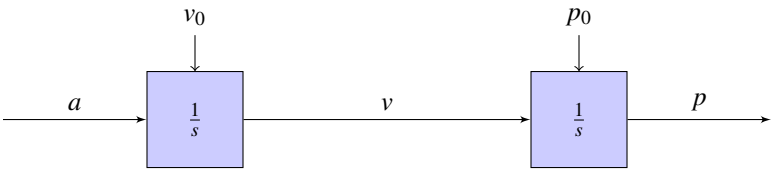


Figure 3. Example Image Using TikZ Package

VIII. Sample Code Listings

Listing 1: Example C Code Listing

```c
//C hello world example
#include <stdio.h>

int main()
{
    printf("Hello world\n");
    return 0;
}
```

References

[1] *GitHub: Nasa-Latex-Docs*, NASA, (2016) `https://github.com/nasa/nasa-latex-docs`.