

**TITLE FOR GRADUATE THESIS ~~IN~~ L^AT_EX TEMPLATE
IS IN ALL CAPS WITH DOWNWARD
INVERTED TRIANGLE**

By

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A THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Science
(in Earth and Climate Sciences)

The Graduate School
The University of Maine
Month YYYY

Advisory Committee:

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**TITLE FOR GRADUATE THESIS \LaTeX TEMPLATE
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By Ian McKee Nesbitt

Thesis Advisor: Campbell

An Abstract of the Thesis Presented
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This is the abstract. Sentence two. Formatting is easy when you use \LaTeX and it's easy to control. It excels in the math environment but tables can sometimes require more effort. Fortunately, it's open source (i.e. free), platform independent, and there's a big user community. There's a list of resources at the end.

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LIST OF ABBREVIATIONS

| | |
|---|--|
| 2D - Two-Dimensional | LIA - Little Ice Age |
| 3D - Three-Dimensional | LiDAR - Light Detection And Ranging |
| DEM - Digital Elevation Model | LIS - Laurentide Ice Sheet |
| DSLR - Digital Single Lens Reflex | m.a.s.l. - Meters Above Mean Sea Level |
| GCP - Ground Control Point | MTL - Marine Transgression Line |
| GeoTIFF - Georeferenced Tagged Image File Format | radar - Radio Detection And Ranging |
| GIS - Geographical Information System | RGB - Red, Green, Blue |
| GPR - Ground-Penetrating Radar | RMS - Root Mean Square |
| GPS - Global Positioning System | RTK - Real Time Kinematic |
| GSSI - Geophysical Survey Systems Incorporated | SfM - Structure from Motion |
| IMU - Inertial Measurement Unit | SLR - Sea Level Rise |
| | SSS - Sidescan Sonar |
| | w.e. - Water Equivalent |

Chapter 1
INTRODUCTION

Chapter 2

METHODS

To refer to a table use 2.1. When labeling the table, put the label after you end the tabular environment.

For an equation we have

$$A = \pi r^2 \tag{2.1}$$

Table 2.1: Example table from some data[†].

| Point | Elevation GPS '99 | 2015 Pixel Elev | Diff 1999-Raster | Ratio | Ratio (no outlier) |
|-------------------|----------------------|--------------------|---------------------|-------|--------------------------|
| 99-1a | 1621.055 | 842.0439 | 779.011 | 1.93 | 1.93 |
| 99-3a-1 | 1891.129 | 1008.286 | 882.843 | 1.88 | 1.88 |
| Ed Little [99-3b] | 1885.780 | 1048.884 | 836.896 | 1.80 | |
| 99-4a | 1830.979 | 999.385 | 831.594 | 1.83 | 1.83 |
| C29-1a | 1611.290 | 828.326 | 782.964 | 1.95 | 1.95 |
| C29-1b | 1611.895 | 831.478 | 780.417 | 1.94 | 1.94 |
| C29-1c | 1611.391 | 830.311 | 781.599 | 1.94 | 1.94 |
| C29-3 | 1611.177 | 831.162 | 780.015 | 1.94 | 1.94 |
| C29 Tripod | 1611.247 | 820.626 | 790.621 | 1.96 | 1.96 |
| Cathedral Peak | 2134.177 | 1113.373 | 1020.804 | 1.92 | 1.92 |
| Generator 2 | 1613.978 | 829.450 | 784.528 | 1.95 | 1.95 |
| Lower Cirque | 2060.727 | 1074.479 | 986.248 | 1.92 | 1.92 |
| Metal Marker | 1602.020 | 792.410 | 809.610 | 2.02 | |
| FFGR 75 | 1610.663 | 820.620 | 790.043 | 1.96 | 1.96 |
| Average | | | 831.228 | 1.923 | 1.925 |
| Std Dev | | | 79.122 | 0.056 | 0.038 |
| Error (%) | | | 9.5 | 2.9 | 2.0 |

[†]Using the ratio of the values of the 1999 GCP elevation to the nearby pixel values of the 2015 SfM DEM results in a scalar that has a better fit than using a simple difference, and removing the outliers lowers the variation by a third while only changing the scalar by 0.1%.

but a more fun equation is

$$\nabla^2 x = \frac{d^2 u}{dt^2}. \quad (2.2)$$

Referencing equation is easy and you can label it at the end of the equation environment. Eq. (2.2) is the wave equation. Equations can be entered in-line using the $\$$ symbol to start and end an in-line math equation. For example,

$$\sigma_{ij} = \lambda \varepsilon_{kk} \delta_{ij} + \mu \varepsilon_{ij}.$$

Referring to figures is easy too. Check out Fig 2.1



Figure 2.1: How hard can it be if a baby can do it?

If you need help, there is a lot of help topics in for form of online forums and wiki's. A google search of your formatting problems is a good start but here's a list of some resources to get started if you're new at L^AT_EX:

- <http://www.sharelatex.com> - Documentation and general help

- <http://www.overleaf.com> - Free online L^AT_EX environment that has a word count function for the times when you're doing the bare minimum
- <https://stackoverflow.com> - Answers to L^AT_EX questions and all of your other homework questions.
- reu.dimacs.rutgers.edu/Symbols.pdf - a cheat sheet for the math environment.
- <http://www.bibtex.org/> - Help for using B_IB_T_EX. Mendeley, Zotero and a few other reference managers have B_IB_T_EX support and can be linked easily.

REFERENCES

Appendix A

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BIOGRAPHY OF THE AUTHOR

Ian Nesbitt was born in North Adams, MA, on November 12, 1990. He attended Mount Greylock Regional High School and Holderness School, where he graduated in 2009. In June 2013, he received a B.A. with honors in geosciences from Williams College, where he also competed as a NCAA Division I Nordic skier. At his previous workplace, he oversaw the field side of large geophysical projects for a small company in southwestern Connecticut. The job taught him many things, including surveying, piloting, and seamanship of small (60 foot, 50 ton) vessels in the crowded waters of the lower Hudson and East Rivers. Ian McKee Nesbitt is a candidate for the Master of Science degree in Earth and Climate Sciences from The University of Maine in Month YYYY.