

**TITLE FOR GRADUATE THESIS ~~La~~TeX TEMPLATE  
IS IN ALL CAPS WITH DOWNWARD  
INVERTED TRIANGLE**

By

Ian McKee Nesbitt

B.A. Williams College, 2013

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:

Seth William Campbell, Research Assistant Professor, Advisor

Sean M.C. Smith, Associate Professor

Katherine A. Allen, Assistant Professor

**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<sup>†</sup>.

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
<b>Average</b>			831.228	1.923	1.925
<b>Std Dev</b>			79.122	0.056	0.038
<b>Error (%)</b>			9.5	2.9	2.0

<sup>†</sup>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<sup>A</sup>T<sub>E</sub>X:

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

- <http://www.overleaf.com> - Free online L<sup>A</sup>T<sub>E</sub>X environment that has a word count function for the times when you're doing the bare minimum
- <https://stackoverflow.com> - Answers to L<sup>A</sup>T<sub>E</sub>X questions and all of your other homework questions.
- [reu.dimacs.rutgers.edu/Symbols.pdf](http://reu.dimacs.rutgers.edu/Symbols.pdf) - a cheat sheet for the math environment.
- <http://www.bibtex.org/> - Help for using B<sub>I</sub>B<sub>T</sub><sub>E</sub>X. Mendeley, Zotero and a few other reference managers have B<sub>I</sub>B<sub>T</sub><sub>E</sub>X 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.