

PUT YOUR TITLE HERE

A Thesis

by

FULL NAME HERE

BS, University Name, Graduation Year

Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

in

PROGRAM NAME IN CAPITAL LETTERS

Texas A&M University-Corpus Christi
Corpus Christi, Texas

August 2022

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A Thesis

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This thesis meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

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August 2022

ABSTRACT

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Note: For the entire submission – wherever there are differences in format and layout between the specifications of the University template/guidelines and the style guide utilized by the discipline, the University template/guidelines overrule the discipline's style guide.

DEDICATION

The dedication page is optional and follows the abstract page. The title DEDICATION is capitalized and centered at the top of the page, followed by two double spaces. There must be no additional space before or after titles and headings. Use the same margins and font style and size as used in the narrative text.

ACKNOWLEDGEMENTS

Place any acknowledgements you have here. Do not forget to acknowledge your funding sources and committee members.

The acknowledgements page is optional and follows the dedication page. The title ACKNOWLEDGEMENTS is capitalized and centered at the top of the page. The text begins two double spaces below the title. There must be no additional space before or after titles and headings. Use the same margins and font style and size as used in the text of the dissertation.

TABLE OF CONTENTS

	Page
ABSTRACT	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF FIGURES	viii
LIST OF TABLES	ix
CHAPTER I: CHAPTER NAME HERE	1
1.1 Section 1: My First Section	1
1.1.1 Subsection 1: My First Subsection	1
CHAPTER II: MY METHODOLOGY CHAPTER/MY FIRST INDIVIDUAL STUDY . . .	2
2.1 First Section Name	2
2.2 Second Section Name	2
2.2.1 First Subsection Name	2
2.2.2 Second Subsection Name	3
CHAPTER III: MY THIRD CHAPTER	5
3.1 First Section Name	5
3.2 Second Section Name	5
3.2.1 First Subsection Name	5
3.2.1.1 First Subsubsection Name	5
CHAPTER IV: MY FOURTH CHAPTER	7
CHAPTER V: SUMMARY AND CONCLUSIONS	8
REFERENCES	9
APPENDIX A: PYTHON CODE	10

LIST OF FIGURES

	Page
2.1 Insert a figure caption here. The TAMUCC horizontal logo with text	3

LIST OF TABLES

	Page
2.1 Fractional refractivity difference statistics for colocated GNSS RO and dropsonde profiles within various height ranges.	3
2.2 As in Table 2.1, but for colocation subsets based on difference in distance between profiles	4

CHAPTER I: CHAPTER NAME HERE

1.1 Section 1: My First Section

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

1.1.1 Subsection 1: My First Subsection

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CHAPTER II: MY METHODOLOGY CHAPTER/MY FIRST INDIVIDUAL STUDY

Published as: **Nelson, K. J.**, F. Xie, C. O. Ao, and M. I. Oyola-Merced, 2021: Diurnal Variation of the Planetary Boundary Layer Height Observed from GNSS Radio Occultation and Radiosonde Soundings over the Southern Great Plains. J. Atmos. Oceanic. Tech. 38, doi:10.1007/978-3-540-70575-8_10

Abstract

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

2.1 First Section Name

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2.2 Second Section Name

2.2.1 First Subsection Name

Here is an example of how to use and reference an equation in LaTeX

Atmospheric refractivity in the lower troposphere is a function of pressure, temperature, and



Figure 2.1

Insert a figure caption here. The TAMUCC horizontal logo with text

moisture. The refractivity profile for each radiosonde can be calculated using Eq. 2.1:

$$N = b_1 \frac{P}{T} + b_2 \frac{P_w}{T^2} \quad (2.1)$$

Use dollar signs to create an in-text math environment to use symbols or detail equation components. For example, I can use $^{\circ}$ or \pm like this.

Parenthetical in-text citation example: (Kursinski et al., 1997) Author (Year) format for in-text citations example: Kursinski et al. (1997) The commands take an argument of the label for your reference based on the labels in your reference file.

2.2.2 Second Subsection Name

You can reference the figure, a section, a table, or another labeled object like this: Figure 2.1.

Here is a simple table example:

Table 2.1

Fractional refractivity difference statistics for colocated GNSS RO and dropsonde profiles within various height ranges.

Height Range [km]	COSMIC-1/TCDROPS N-Bias [%]	COSMIC-2/HRD N-Bias [%]
0.2-2	-1.603 \pm 0.441	-1.237 \pm 0.268
2-5	-0.350 \pm 0.119	-0.521 \pm 0.177
5-14	0.109 \pm 0.117	0.098 \pm 0.055
Overall	0.0035 \pm 0.120	-0.071 \pm 0.222

Here is a more complicated table example:

Table 2.2

As in Table 2.1, but for colocation subsets based on difference in distance between profiles

	Height [km]	COSMIC-1 <i>N</i> -Bias [%]	COSMIC-2 <i>N</i> -Bias [%]
ds <100 km	0.2-2	-2.514 ± 0.806	-1.684 ± 0.328
	2-5	-0.177 ± 0.749	-2.355 ± 0.727
	5-14	0.061 ± 0.209	0.732 ± 0.557
	Overall	-0.025 ± 0.301	0.073 ± 1.456
100 km <ds <200 km	0.2-2	-1.171 ± 0.592	-1.056 ± 0.277
	2-5	0.078 ± 0.211	-0.012 ± 0.277
	5-14	0.158 ± 0.117	0.036 ± 0.067
	Overall	0.133 ± 0.171	0.009 ± 0.137
ds >200 km	0.2-2	-1.785 ± 0.307	-1.337 ± 0.352
	2-5	-0.641 ± 0.185	-0.665 ± 0.235
	5-14	0.087 ± 0.092	0.995 ± 0.067
	Overall	-0.035 ± 0.218	-0.084 ± 0.249

CHAPTER III: MY THIRD CHAPTER

Abstract

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

3.1 First Section Name

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3.2 Second Section Name

3.2.1 First Subsection Name

3.2.1.1 First Subsubsection Name

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should match the language.

CHAPTER IV: MY FOURTH CHAPTER

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Appendix A: Appendix within a Chapter

This is my in-chapter appendix.

CHAPTER V: SUMMARY AND CONCLUSIONS

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

REFERENCES

Kursinski, E. R., Hajj, G. A., Schofield, J. T., Linfield, R. P., & Hardy, K. R. (1997). Observing earth's atmosphere with radio occultation measurements using the global positioning system [Journal Article]. *Journal of Geophysical Research: Atmospheres*, 102(D19), 23429-23465. doi: doi:10.1029/97jd01569

APPENDIX A:

PYTHON CODE

```
#!/usr/bin/env python

# Written by Kevin Nelson @ TAMUCC for Dissertation research, used as example
# code in LaTeX reformatting process. Code downloads daily ERA5 model level
# atmospheric reanalysis data.

import cdsapi
import time
import sys
import urllib3
import calendar
import numpy as np

# Suppress insecure request warnings
urllib3.disable_warnings(urllib3.exceptions.InsecureRequestWarning)

# Set the start time
stime = time.time()

# Start the CDS API client
c = cdsapi.Client()

# Set format, grid, and area for downloaded files
output_format = 'netcdf'
output_grid = '0.25/0.25'
output_area = '90.0/-180.0/-90.0/180.0' # North/West/South/East
save_path = '/cloud/data/model/era5/split_files/ml_hires/'

# Loop over each day of month to get daily files
year = '2007'
for month in ['10', '11', '12']:
```

```

ndays = calendar.monthrange(int(year),int(month))[1]
day_range = np.arange(0,ndays)+1
if month == '10':
    day_range = np.arange(10,ndays)+1
for dd in day_range:
    if dd<10:
        dtg = year + '-' + month + '-0' + str(dd)
    else:
        dtg = year + '-' + month + '-' + str(dd)
    if dtg=='2020-08-20':
        continue
era5_output_name = save_path + 'era5_hires_' + dtg + '.ncdf'
era5_mars_call = {
    'area':output_area ,
    'class':'ea',
    'date':dtg ,
    'expver':'1',
    'format':output_format ,
    'grid':output_grid ,
    'levelist':'1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/' + \
        '20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/' + \
        '39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/' + \
        '58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/' + \
        '77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/' + \
        '96/97/98/99/100/101/102/103/104/105/106/107/108/109/110/' + \
        '111/112/113/114/115/116/117/118/119/120/121/122/123/124/' + \
        '125/126/127/128/129/130/131/132/133/134/135/136/137',
    'levtype':'ml',
    'param':'75/76/129/130/131/132/133/135/138/152/155/246/247/248',
    'stream':'oper',
    'time':'00:00:00/03:00:00/06:00:00/09:00:00/12:00:00/' + \
        '15:00:00/18:00:00/21:00:00',
    'type':'an'}

```

```

c.retrieve('reanalysis-era5-complete', era5_mars_call, \
           era5_output_name)

# Calculate overall timer
end_time = time.time()
print('### All ERA5 data for ' + year + ' downloaded in: ' + \
      str((end_time-stime)/3600.) + ' hours. ###')

```