

# TexEdBook

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# Forward

This is *not* a full thesis template! It only demonstrates how to create per-chapter references using the `chapterbib` package with BibTeX. (Do not use with BibLaTeX!)

Each chapter must be in its own `.tex` file and `include`-d into the main `.tex` file. If compiling on your own machine, run `bibtex` on *each* generated `.aux` file, before running `pdflatex` twice more. (These are done automatically on Overleaf.)

# Contents

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# 1

## Interactive Content

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### 1.1 Videos

#### Digital Content : Video

[Calculus](#) | This video by the Three Blue One Brown YouTube channel give a wonderful introduction to the core concepts of Calculus

#### Digital Content : Video

[Complex Fermi Surfaces](#) | This video by Prof. Jeff Snyder introduces complex Fermi surfaces in semi-conductors.

### 1.2 Coding

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```
import numpy as np
import matplotlib.pyplot as plt

x = np.linspace(0,2)
y1 = np.exp(x)
```

```
y2 = x + 1

plt.plot(x, y1, label=r"$y_1=e^x$")
plt.plot(x, y2, label=r"$y_2 = x + 1$")
plt.legend()
plt.xlim(0,1)
plt.ylim(0,3)
plt.xlabel('x')
plt.ylabel('y')

plt.show()
```

#### Digital Content : Python coding environment

[Sample Trinket](#) | This is a Python3 coding environment powered by Trinket.

### 1.3 Live Math

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#### Digital Content : CalcHub Workspace

[Sample CalcHub Workspace](#) | At this link you can find an interactive workspace for working out live math problems.

## Bibliography

## 2

# Equations and Figures

## 2.1 Equations

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$$\kappa_{\text{pg}} = \frac{1}{3} \int_0^{\omega_{\text{max}}} C(\omega) v_{\text{g}}(\omega)^2 \tau(\omega) d\omega. \quad (2.1)$$

Test. Etiam ullamcorper, nunc a accumsan adipiscing, turpis odio bibendum erat, id convallis magna eros nec metus. Sed vel ligula justo, sit amet vestibulum dolor. Sed vitae augue sit amet magna ullamcorper suscipit. Quisque dictum ipsum a sapien egestas facilisis.

## 2.2 Figure

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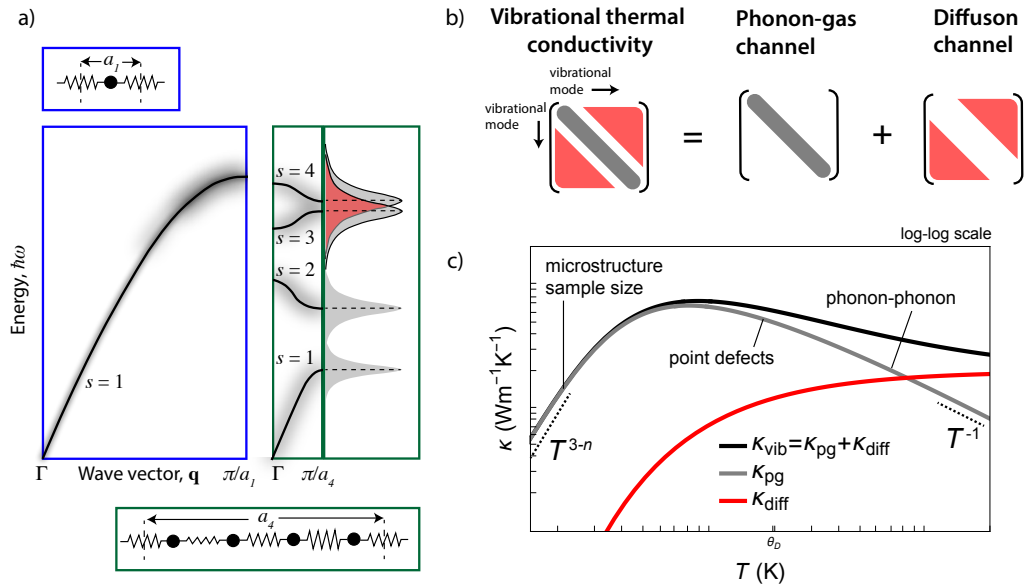


Figure 2.1: Figure Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis risus ante, auctor et pulvinar non, posuere ac lacus. Praesent egestas nisi id metus rhoncus ac lobortis sem hendrerit.

amet vestibulum dolor. Sed vitae augue sit amet magna ullamcorper suscipit. Quisque dictum ipsum a sapien egestas facilisis. [Snyder's thermoelectrics website](#).

## Bibliography

- [1] Frank Mittelbach, Michel Goossens, Johannes Braams, David Carlisle, and Chris Rowley. *The L<sup>A</sup>T<sub>E</sub>X Companion*. Addison-Wesley Series on Tools and Techniques for Computer Typesetting. Addison-Wesley, Boston, MA, USA, 2nd edition, 2004.

## 3

# Lists and Tables

*“This is a quote and I don’t know who said this.”*

– Author’s name, *Source of this quote*

### 3.1 Lists

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$$\alpha = x^2 \tag{3.1}$$

#### 3.1.1 Numbered list

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4. Fusce vulputate facilisis neque, et ornare mauris mattis vel.
5. Mauris sit amet nulla mi, vitae rutrum ante.
6. Maecenas quis nulla risus, vel tincidunt ligula.
7. Nullam ac enim neque, non *dapibus* mauris.
8. Integer volutpat leo a orci suscipit eget rhoncus urna eleifend.

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### 3.1.2 Bulleted list

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- Maecenas quis nulla risus, vel tincidunt ligula.
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## 3.2 Tables

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Table 3.1: Sample table

S. No.	Column#1	Thermal conductivity, $\kappa_{\text{pg}}$	Column#3
1	50	837	970
2	47	877	230
3	31	25	415
4	35	144	2356
5	45	300	556

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- [1] Atsuko Ohno, Satoshi Sasaki, Eiji Nishibori, Shinobu Aoyagi, Makoto Sakata, and Bo Brummerstedt Iversen. X-ray charge density study of chemical bonding in skutterudite  $\text{CoSb}_3$ . *Physical Review B*, 76(6):064119, 2007.

# Afterword

- [1] Lim, L. T. [2016]. How to write in Markdown on Overleaf.  
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- [2] Lim, L. T., Chiew, R. T., Tang, E. K., Rusli, A. G. and Naimah, Y. [2016]. Digitising a machine-tractable version of Kamus Dewan with TEI-P5, *PeerJ Preprints* 4: e2205v1.  
**URL:** <https://doi.org/10.7287/peerj.preprints.2205v1>