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By

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In SOME-SCHOOL

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This thesis has been approved in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE in SOME-SCHOOL.

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Dedication

To my mother, teachers and friends

who didn't hesitate to criticize my work at every stage - without which I would neither be who I am nor would this work be what it is today.

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Preface

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Acknowledgments

I would like to thank all those who have helped me learn, understand and appreciate this subject as well as those who helped me with LaTeX.

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Abstract

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Chapter 1

Introduction

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Discere dissentiet vel et, soluta nostrum epicurei ad eam, cu has aperiam vituperata. In prima quaeque diceret pri. Enim labores contentiones eos at, duo altera denique nominavi ea, eos inani nominavi consectetuer at. Ut elitr dicam elaboraret pro, ius altera voluptaria cu. Eam mazim aliquip cu, recusabo pericula accommodare at mea, facer affert nonumes qui ea. [1, 2, 3]

1.1 Section 1

At vix indoctum disputando. Eam cu doctus reprimique, quaeque democritum an eos, sit veniam facete dissentias id. Tale volumus eos te, an eum nulla tincidunt. Mea id recteque theophrastus.

Eirmod malorum vis ei. Choro euismod incorrupte in vim, ludus ornatus vis ex. Hinc wisi impedit eum no, vocent definiebas referrentur in quo. Sanctus vulputate repudiandae usu ut.

1.1.1 Subsection 1

Liber liberavisse nec at, movet albucius principes has at. Ea sed persius accusam, clita sententiae adversarium ne sed. Usu no graecis theophrastus delicatissimi, sint aliquam an eam. Mei elit mnesarchum dissentias te, in essent laboramus per. Affert mucius quidam mel ex, per dicam insolens ad.

Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficiantur. Eos id voluptaria efficiendi comprehensam. [4] In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum. Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax. [1, 2, 5, 6, 7]

Aliquip lobortis ei est, at error viris graeco sed. Vel te elitr detracto, modo graecis scripserit ex nec. Errem utamur viderer per no, eam ea eripuit referrentur. Pro te dicat disputando.

1.1.2 Subsection 2

Ex offendit elaboraret cum in Sec. 1.1.1, has ex natum honestatis, impedit similique ex duo. Et mei mollis scripta, et vim labores phaedrum, in cum facete saperet. Splendide elaboraret comprehensam qui ne. Putant verterem no vim, mea solum veritus definitiones ei, no labitur propriae deseruisse est. Ius illud everti salutandi id, eu facer pericula principes est.

Simul noster voluptaria eam ei, sint regione pri ei. Cum no utinam equidem, falli bonorum prodesset an qui. Alterum dissentiet vituperatoribus te eam, eos ea suas oblique. Per ea utinam facilisi. [7, 8, 9] Per iudico probatus complectitur et, cum tollit atomorum rationibus ea.

1.2 Section 2

Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficiantur. Eos id voluptaria efficiendi comprehensam. [3, 10]

In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum. Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax. [11, 12, 13, 14, 15] Per iudico probatus complectitur et, cum tollit atomorum rationibus ea. Per iudico probatus complectitur et, cum tollit atomorum rationibus ea.

Aliquip lobortis ei est, at error viris graeco sed. Vel te elitr detracto, modo graecis scripserit ex nec. Errem utamur viderer per no, eam ea eripuit referrentur. Pro te dicat disputando. Per iudico probatus complectitur et, cum tollit atomorum rationibus ea. [16, 17, 18, 19]. Per iudico probatus complectitur et, cum tollit atomorum rationibus ea.

Per iudico probatus complectitur et, cum tollit atomorum rationibus ea. Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Per iudico probatus complectitur et, cum tollit atomorum rationibus ea.

Chapter 2

Theory and Practice

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At vix indoctum disputando. Eam cu doctus reprimique, quaeque democritum an eos, sit veniam facete dissentias id. Tale volumus eos te, an eum nulla tincidunt. Mea id recteque theophrastus.

$$d\nu = \frac{N}{V} \left(\frac{m}{2\pi kT}\right)^{3/2} e^{-mv^2/2kT} v^3 \sin\theta \cos\theta d\theta d\phi dv \qquad (2.1)$$

Eirmod malorum vis ei. Choro euismod incorrupte in vim, ludus ornatus vis ex. Hinc wisi impedit eum no, vocent definiebas referrentur in quo. Sanctus vulputate repudiandae usu ut. In prima quaeque diceret pri. Enim labores contentiones eos at, duo altera denique nominavi ea, eos inani nominavi consectetuer at.

Liber liberavisse nec at, movet albucius principes has at. Ea sed persius accusam, clita sententiae adversarium ne sed. Usu no graecis theophrastus delicatissimi, sint aliquam an eam. Mei elit mnesarchum dissentias te, in essent laboramus per. Affert mucius quidam mel ex, per dicam insolens ad.



Figure 2.1: Histogram of nearest neighbors

Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficiantur. Eos id voluptaria efficiendi comprehensam. In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum.

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Table 2.1
A portrait table: first column represents the year in which the Nobel prize in physics was awarded; second column indicates the name of the scientist and the third column is the work for which the Nobel prize was awareded

| Year | Scientist(s) | Nobel Work | | |
|------|---------------------|---|--|--|
| 1901 | W. C. Röntgen | X-rays | | |
| 1902 | H. A. Lorentz | Influence of magnetism on radiation | | |
| | P. Zeeman | Influence of magnetism on radiation | | |
| 1903 | A. H. Becquerel | Spontaneous radioactivity | | |
| | M. Curie | Radiation phenomena discovered by Becquerel | | |
| | P. Curie | Radiation phenomena discovered by Becquerel | | |
| 1904 | J. W. Strutt | Argon | | |
| 1905 | P. E. A. von Lenard | Cathode rays | | |
| 1906 | J. J. Thomson | Electrical conductivity of gases | | |
| 1907 | A. A. Michelson | Spectroscopic and metrological investigations | | |
| 1908 | G. Lippmann | Photographic reproduction of colours | | |
| 1909 | K. F. Braun | Wireless telegraphy | | |
| | G. Marconi | Wireless telegraphy | | |
| 1910 | J. D. van der Waals | Equation of state of gases and liquids | | |
| 1911 | W. Wien | Laws governing heat radiation | | |
| 1912 | N. G. Dalèn | Automatic regulators for lighting coastal beacons | | |
| | | and light buoys | | |

As explained in Table 2.1, Ex offendit elaboraret cum has ex natum honestatis, impedit similique ex duo. Et mei mollis scripta, et vim labores phaedrum, in cum facete saperet. Splendide elaboraret comprehensam qui ne. Putant verterem no vim, mea solum veritus definitiones ei, no labitur propriae deseruisse est. Ius illud everti salutandi id, eu facer pericula principes est.

Simul noster voluptaria eam ei, sint regione pri ei. Cum no utinam equidem, falli bonorum prodesset an qui. Alterum dissentiet vituperatoribus te eam, eos ea suas oblique. Per ea utinam facilisi. Per iudico probatus complectitur et, cum tollit atomorum rationibus ea.

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Chapter 3

Results and Discussion

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Discere dissentiet vel et, soluta nostrum epicurei ad eam, cu has aperiam vituperata. In prima quaeque diceret pri. Enim labores contentiones eos at, duo altera denique nominavi ea, eos inani nominavi consectetuer at. Ut elitr dicam elaboraret pro, ius altera voluptaria cu. Eam mazim aliquip cu, recusabo pericula accommodare at mea, facer affert nonumes qui ea. [21, 22]

$$d\nu_{\theta} = \frac{N}{V} \left(\frac{m}{2\pi kT}\right)^{3/2} \left[\int_{0}^{2\pi} \int_{0}^{\infty} v^{3} e^{-mv^{2}/2kT} dv d\phi\right] \sin\theta \cos\theta d\theta$$

$$= 2\pi \frac{N}{V} \left(\frac{m}{2\pi kT}\right)^{3/2} \left[\int_0^\infty v^3 e^{-mv^2/2kT} dv\right] \sin\theta \cos\theta d\theta$$

At vix indoctum disputando. Eam cu doctus reprimique, quaeque democritum an eos, sit veniam facete dissentias id. Tale volumus eos te, an eum nulla tincidunt. Mea id recteque theophrastus.

$$d\nu_{\theta} = \frac{N}{V} \left(\frac{2kT}{m\pi}\right)^{1/2} \sin\theta \cos\theta \, d\theta \tag{3.1}$$

Liber liberavisse nec at, movet albucius principes has at. Ea sed persius accusam, clita sententiae adversarium ne sed. Usu no graecis theophrastus delicatissimi, sint aliquam an eam. Mei elit mnesarchum dissentias te, in essent laboramus per. Affert mucius quidam mel ex, per dicam insolens ad.

Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficientur. Eos id voluptaria efficiendi comprehensam. Continuing from Eqn. (3.1)

$$d\nu_v = \frac{N}{V} \left(\frac{m}{2\pi kT} \right)^{3/2} \left[\int_0^{2\pi} \int_0^{\pi/2} \sin\theta \, \cos\theta \, d\theta \, d\phi \right] v^3 e^{-mv^2/2kT} \, dv$$

$$= 2 \pi \frac{N}{V} \left(\frac{m}{2\pi kT} \right)^{3/2} \left[\int_0^{\pi/2} \sin \theta \cos \theta \, d\theta \right] v^3 e^{-mv^2/2kT} \, dv$$

In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum. Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax.

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Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax.

$$d\nu_v = \frac{N}{V} \pi \left(\frac{m}{2\pi kT}\right)^{3/2} v^3 e^{-mv^2/2kT} dv$$
 (3.2)

Aliquip lobortis ei est, at error viris graeco sed. Vel te elitr detracto, modo graecis scripserit ex nec. Errem utamur viderer per no, eam ea eripuit referrentur. Pro te dicat disputando.



Figure 3.1: Distribution of random numbers

 ${\bf Table~3.1}$ Measured data points representing the relationship between x and y

| \overline{x} | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------|---|------|------|-------|-------|-------|------|------|------|------|-------|
| \overline{y} | 0 | 0.94 | 0.99 | -0.52 | -1.82 | -0.44 | 3.54 | 6.69 | 5.38 | 0.00 | -4.42 |

Et mei mollis scripta, et vim labores phaedrum, in cum facete saperet. Splendide elaboraret comprehensam qui ne. Putant verterem no vim, mea solum veritus definitiones ei, no labitur propriae deseruisse est. Ius illud everti salutandi id, eu facer pericula principes est.

Table 3.2

A landscape table: first column represents the year in which the Nobel prize in physics was awarded; second column indicates the name of the scientist and the third column is an as is Nobel citation

| Year | Scientist(s) | Nobel Work |
|------|-----------------------------|---|
| 1901 | W. C. Röntgen | in recognition of the extraordinary services he has rendered by the |
| | | discovery of the remarkable rays subsequently named after him |
| 1902 | H. A. Lorentz and P. Zeeman | in recognition of the extraordinary service they rendered by their |
| | | researches into the influence of magnetism upon radiation phenomena |
| 1903 | A. H. Becquerel | in recognition of the extraordinary services he has rendered by his |
| | | discovery of spontaneous radioactivity |
| | M. Curie and P. Curie | in recognition of the extraordinary services they have rendered by |
| | | their joint researches on the radiation phenomena discovered by Prof. |
| | | Henri Becquerel |
| 1904 | J. W. Strutt | for his investigations of the densities of the most important gases and |
| | | for his discover argon in connection with these studies |
| 1905 | P. E. A. von Lenard | Cathode rays |
| 1906 | J. J. Thomson | Electrical conductivity of gases |
| 1907 | A. A. Michelson | Spectroscopic and metrological investigations |
| 1908 | G. Lippmann | Photographic reproduction of colours |
| 1909 | K. F. Braun and G. Marconi | Wireless telegraphy |
| 1910 | J. D. van der Waals | Equation of state of gases and liquids |
| 1911 | W. Wien | Laws governing heat radiation |
| 1912 | N. G. Dalèn | Automatic regulators for lighting coastal beacons and light buoys |

Et mei mollis scripta, et vim labores phaedrum, in cum facete saperet. Splendide elaboraret comprehensam qui ne. Putant verterem no vim, mea solum veritus definitiones ei, no labitur propriae deseruisse est. Ius illud everti salutandi id, eu facer pericula principes est.

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Figure 3.2: A landscape view of a Turboprop engine - these are jet engine derivatives, still gas turbines, that extract work from the hot-exhaust jet to turn a rotating shaft, which is then used to produce thrust by some other means

Id ius soluta semper audiam, ad eos scriptorem concludaturque, id mel rebum volumus deserunt. Mel libris percipit scriptorem te, his an dicat putent menandri, mazim officiis aliquando mei no. Ne clita veniam disputando vim, postea hendrerit maiestatis qui id. Mei te suscipit quaerendum, an aliquando intellegebat ius, ei simul detraxit dissentiet eam. Zril dolor ut usu.

Everti saperet vis ut. Scripta maluisset mel eu, duis antiopam in pro. Sea diceret contentiones ea. Nec eu duis efficiantur, evertitur constituam mediocritatem te vis, pro error regione ad. Sit malorum aliquam at, pericula dissentias mei ei. Cu soluta urbanitas est, albucius vituperatoribus usu et.

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Appendix A

Proof of Existence

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Discere dissentiet vel et, soluta nostrum epicurei ad eam, cu has aperiam vituperata. In prima quaeque diceret pri. Enim labores contentiones eos at, duo altera denique nominavi ea, eos inani nominavi consectetuer at. Ut elitr dicam elaboraret pro, ius altera voluptaria cu. Eam mazim aliquip cu, recusabo pericula accommodare at mea, facer affert nonumes qui ea.

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A.1 Section 1

At vix indoctum disputando. Eam cu doctus reprimique, quaeque democritum an eos, sit veniam facete dissentias id. Tale volumus eos te, an eum nulla tincidunt. Mea id recteque theophrastus.

Eirmod malorum vis ei. Choro euismod incorrupte in vim, ludus ornatus vis ex. Hinc wisi impedit eum no, vocent definiebas referrentur in quo. Sanctus vulputate repudiandae usu ut.

A.2 Section 2

Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficiantur. Eos id voluptaria efficiendi comprehensam.

In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum.

Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax.

Appendix B

Sample Code

In mel modo dicam vocibus, eruditi consectetuer vim no, cu quaestio instructior eum. Justo nostrud fuisset ea mea, eam an libris repudiandae vituperatoribus. Est choro corrumpit definitionem at. Vel sint adhuc vocibus ea, illud epicuri eos no. Sea simul officiis ea, et qui veri invidunt appellantur. Vix et eros ancillae pertinax.

Docendi eligendi sit et, pri ea dicam eligendi percipitur, has soleat dolores convenire te. Sed altera placerat an, id verterem abhorreant interesset mea. Eum at ceteros efficiantur. Eos id voluptaria efficiendi comprehensam.

At vix indoctum disputando. Eam cu doctus reprimique, quaeque democritum an eos, sit veniam facete dissentias id. Tale volumus eos te, an eum nulla tincidunt. Mea id recteque theophrastus. Eirmod malorum vis ei.

B.1 HelloWorld.c

```
// HelloWorld.c
// C program to display 'Hello, World!' in the terminal.
11
// Compilation:
// gcc -g -Wall HelloWorld.c -o HelloWorld.x
11
// Execution:
// ./HelloWorld.x
// Standard headers
#include <stdio.h>
// main() begins
int main() {
  // Print the message
 printf("\n Hello, World!\n\n");
  // Indicate the termination of main()
 return 0;
}
// main() ends
```

Appendix C

Letters of Permission

Include letters of permission from journal editors and/or other sources from which you may have used materials (images, information, etc.) in this this work.

These materials may also be submitted separately to the Graduate School as a single, well-organized PDF file.