Michigan Tech

UN5390: Scientific Computing I

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Designing proactive paradigms to leverage orchestrated cutting-edge visionary channels with matrix dynamic functionalities by employing high performance computing infrastructure

John Sanderson (john@mtu.edu) · Dr. Jane Jameson (jane@mtu.edu)

Guidelines

1. Do not edit this file directly as it might be periodically overwritten with changes. Copy `Description.tex` as `Description_${USER}.tex`, and edit the latter.
2. Refer to Tips section in the course material for step by step instructions to compile `Description_${USER}.tex`, and commit `Description_${USER}.*` to the GitHub repository.
3. Keep your research advisor happy by making timely and meaningful progress. He/She controls the score for this project, worth 20% of the final grade.

Introduction

Include a very brief description, ala elevator pitch, that someone not in your area of research can understand. Must not exceed one paragraph with three-four sentences.

Lorem Ipsum is simply dummy text of the printing and typesetting [1] industry. It has been the industry's standard dummy text ever since the 1500s, when an unknown printer took [2, 3] a galley of type and scrambled it to make a type specimen book. It has survived five centuries, the leap into electronic typesetting, and remained essentially unchanged.

Description

Describe what you are going to do and how you are going to do it? This can be technical, and intended for someone in your area of research. Include any mathematics, graphics, and preliminary work that has already been done (either by you or someone else). No more than five references, and must not exceed three paragraphs with five-six sentences per paragraph.

It is a long established fact [4, 5] that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using *Content here, content here*, making it look like readable English. A search for *lorem ipsum* will uncover many web sites in their infancy. A search for *lorem ipsum* will uncover many web sites in their infancy.

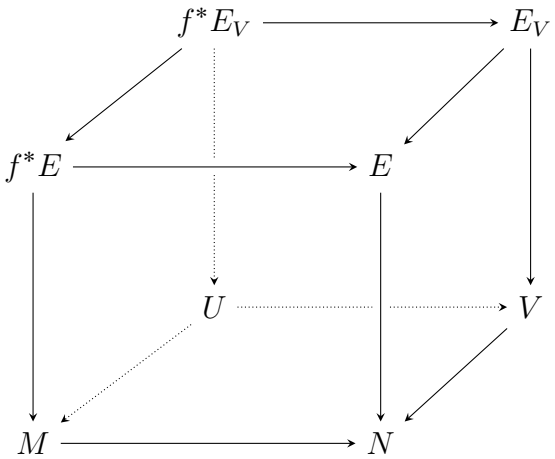

Figure 1: Boxed representation of the future of our universe

There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some form, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text. All the Lorem Ipsum generators on the Internet tend to repeat predefined chunks as necessary, making this the first true generator on the Internet. It uses a dictionary of over 200 Latin words, combined with a handful of model sentence structures, to generate Lorem Ipsum which looks reasonable. The generated Lorem Ipsum is therefore always free from repetition, injected humour, or non-characteristic words etc.

$$\pi_{\text{newton}} = 2\sum_{n=0}^{\infty}\frac{2^n\ (n!)^2}{(2n+1)!} \qquad \pi_{\text{madhava}} = \sqrt{12}\sum_{n=0}^{\infty}\frac{(-3)^{-n}}{2n+1} \tag{1}$$

From Eqn. (1), sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo [1, 4, 5]. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, consectetur, sed quia non numquam eius modi tempora dolore magnam aliquam quaerat voluptatem.

References

[1] J. D. Watson and F. H. C. Crick. Molecular Structure Of Nucleic Acids: A Structure For Deoxyribose Nucleic Acid. *Nature*, 171:737, 1953.

[2] General public. *TEXamples*. `http://www.texample.net/tikz/examples/`, 2014.

[3] Unknown author. *The Planet Math*. `http://planetmath.org/encyclopedia/Sphere.html`, 2009.

[4] N. Giordano and H. Nakanishi. *Computational Physics*. Pearson Prentice Hall, Upper Saddle River, NJ, USA, 2006.

[5] A. Einstein, B. Podolsky, and N. Rosen. Can Quantum-Mechanical Description of Physical Reality Be Considered Complete? *Phys. Rev. B*, 47:777, 1935.