

# MAT499 Stuff

by Fred

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*And then, every once in a while, came a revelation, a moment of clarity, an epiphany of religious proportions. Like spending twenty minutes straining your eyeballs trying to see that dumb little sailboat in a book of Magic-Eye 3D computer-generated deely-bobs. You don't see, you don't see, you don't see, you know its there, you don't see, and then you SEE. Without warning, you see. And like a kid with his dad's Playboy, you greedily and giddily try to lap up all you can before your dad gets home. You know the party can't last forever, that you'll lose your concentration for just a second, and then it will be gone. But you gaze anyway, curious and numb, dumbfounded and enrapt. You finally see.*

- Matt Stone, *Why I Like Math*

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## 1 Books

[Homological Algebra and Data by Robert Ghrist](#)

## 2 Papers

[Mapping Firms' Locations in Technological Space: A Topological Analysis of Patent Statistics](#)  
[Financial ratios and stock returns reappraised through a topological data analysis lens](#)

## 3 Courses

[University of Iowa Class on TDA Mapper](#)

## 4 R Implementation

[Bertrand Michel on How to TDAmapper](#)

## 5 Principal Component Analysis/ Principal Coordinate Analysis/ MultiDimensional Scaling

[What's the difference between principal component analysis and multidimensional scaling?](#)  
[7 Methods for Multidimensional Scaling in R](#)  
[MDS in R](#)  
[Introduction to Ordination](#)

## 6 Text Analysis

[Text Analysis in R](#)  
[Sentiment Analysis](#)  
[Fake Review Detection](#)