

## **Book Suggestions**

- *Computing the Continuous Discretely* - Beck, Robins  
<http://math.sfsu.edu/beck/papers/noprint.pdf>
  - interactions between combinatorics, geometry, number theory, and analysis which arises in the interplay between polyhedra and lattices
- *Elements of Number Theory* - Stillwell
  - <https://www.amazon.com/Elements-Number-Theory-Undergraduate-Mathematics/dp/1441930663>
- *Yearning for the Impossible: The surprising Truths of Mathematics* - Stillwell
  - <https://www.amazon.com/Yearning-Impossible-Surprising-Truths-Mathematics/dp/156881254X>
- *Roads to Infinity: The mathematics of Truth and Proof* - Stillwell
  - <https://www.amazon.com/Roads-Infinity-Mathematics-Truth-Proof/dp/1568814666>
- *Ideals, Varieties, and Algorithms* - Cox, Little, O'Shea
  - <http://www.dm.unipi.it/~caboara/Misc/Cox,%20Little,%20O%27Shea%20-%20Ideals,%20varieties%20and%20algorithms.pdf>
- *The Knot Book* - Adams
  - [http://math.harvard.edu/~ctm/home/text/books/adams/knot\\_book/knot\\_book.pdf](http://math.harvard.edu/~ctm/home/text/books/adams/knot_book/knot_book.pdf)
- *The Banach-Tarski Paradox (Encyclopedia of Mathematics and its Applications)* - Wagon
  - <https://www.amazon.com/Banach-Tarski-Paradox-Encyclopedia-Mathematics-Applications/dp/0521457041>
- *Office Hours with a Geometric Group Theorist* - Clay, Margalit
  - <https://press.princeton.edu/titles/11042.html>
- *Set Theory and Metric Spaces* - Kaplansky
  - <https://www.amazon.com/Theory-Metric-Spaces-Chelsea-Publishing/dp/0821826948>
- *Nonlinear Dynamics and Chaos* - Strogatz
  - <http://detritus.fundacioace.com/pub/books/Strogatz%20-%20Nonlinear%20dynamics%20and%20chaos.pdf>
- *Markov Chains and Mixing Times* - Levin, Peres, Wilmer
  - <http://pages.uoregon.edu/dlevin/MARKOV/markovmixing.pdf>
- *Machine Learning: A Probabilistic Perspective* - Murphy
  - <https://www.amazon.com/Machine-Learning-Probabilistic-Perspective-Computation/dp/0262018020>
- *Fractal Geometry* - Falconer
  - <https://www.amazon.com/Fractal-Geometry-Mathematical-Foundations-Applications/dp/0470848618>
- *Heads or Tails: An introduction to limit theorems and probability* - Lesigne
  - <https://www.amazon.com/Heads-Tails-Introduction-Theorems-Probability/dp/0821837141>

- *Galois' Dream: Group Theory and Differential Equations* - Kuga
  - <https://www.springer.com/us/book/9780817636883>
- *Indra's Pearls: The Vision of Felix Klein* - Mumford, Series, Wright
  - <https://www.amazon.com/Indras-Pearls-Vision-Felix-Klein/dp/1107564743>
- *Case Studies in Neural Data Analysis: A Guide for the Practicing Neuroscientist* - Kramer, Eden
  - <https://www.amazon.com/Case-Studies-Neural-Data-Analysis/dp/0262529378>
- *Dynamical Systems: An Introduction* - Barreira
  - <https://www.springer.com/us/book/9781447148340>
- *Deep Learning* - Goodfellow, Bengio, Courville
  - <https://github.com/janishar/mit-deep-learning-book-pdf/tree/master/chapter-wise-pdf>
- *Galois Theory Through Exercises* - Brzezinski
  - <http://www.math.chalmers.se/Math/Grundutb/GU/MMA310/A15/GaloisBookAug2015Student.pdf>
- *P-adic Numbers, p-adic Analysis, and Zeta Functions* - Koblitz
  - <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.461.4588&rep=rep1&type=pdf>
- *Primes of the form  $x^2+ny^2$*  - Bates
  - [http://people.math.umass.edu/~bates/Primes\\_of\\_the\\_form.pdf](http://people.math.umass.edu/~bates/Primes_of_the_form.pdf)
- *All of Statistics* - Wasserman
  - <https://www.ic.unicamp.br/~wainer/cursos/1s2013/ml/livro.pdf>