Spring 2015 Projects

Erik Dubec	Get Real (Or Don't)
Zaid Mahmood	Combinatorial & Graph theory approaches: An algorithm to find the most stable marriage (a.k.a. true love)
Alyssa Jones	Approximating the Genus of a Graph
Candace Behrle	Integer Factorization with Elliptic Curves
William Swartworth	Finite Reflection Groups
Shakthi Shrima	A Calculation of the Ring of Integers in a Cyclotomic Field
Shawn Hu	A Proof of Quadratic Reciprocity by Eisenstein
Cody Freitag	P-adic Analysis
Bryan Richards	Poincare's Recurrence Theorem and an Application
Joey Tatro	Connection Matrices and Analytic Continuation
Guneet Singh Dhillon	Contraction Mapping Theorem in Rn
Josselyn Gonzalez	The Maximum Principle
Rose Nguyen	On Existence and Uniqueness of ODEs
Kartik Chitturi	Functional Analysis in Quantum Mechanics
Clarissa Rodriguez	How Your Email's Spam Filter May Work and More
Eszter Kish	Spectral Clustering
Parker Hund	Topological Data Analysis
Joseph Lubars	Bayesian Learning
Moiz Rizvi	Predicting Malaria
Ewin Tang	Numerical Analysis of the Lorenz System
Mickey Li	Mean-Variance Optimization and CAPM
Dustin Dies	Linear Regression
Yiran Shen	An example of optimal stopping problem
Nick Bhattacharya	Some flavor of Stochastic Geometry
Jesse Dohmann	The Poisson Process as a Limit of Shrinking Bernoulli Processes
Panyu Peng	Performances of AdaBoost algorithm
Jay	Retrieving a Lie Algebra from its Dynkin Diagram
Joseph J. Williams	An Introduction to Manifolds and the Projective Plane
Gregory Lyons	Hyperbolic Triangles
Joann Coronado	Quaternions through the lens of Lie theory
Daniel Hardesty Lewis	Differing Proofs of the Nielsen-Schreier Theorem
Jonathan Walker	Tychonoff and the Axiom of Choice
Alec Eickbusch	The Hausdorff Metric
Feng Ling	What is Persistence Homology

James Dix	Whitehead Torsion
Santiago Benavides	What are Hamiltoninan systems?
Daniel Chupin	"Oh snap, -1/8 is not an integer. QED" and other arguments from index theory
Brett Bishop	From Adam's Conjecture to the Parallelizability of Spheres (and round again!)
Dean Menezes	Introductory Algebraic Geometry