Thursday April 20, 2023

The Weierstrass Approximation Theorem via Bernstein Polynomials
Nigel Krekeler
(Mentor: Michael Lane)

Poker Over the Phone: An Example of Mathematical Cryptography
Nathan Howe
(Mentor: Jonathan Hales)

The Invariant Subspace Problem
Yumin Shen
(Mentor: Thomas O'Hare)

Sturm's Theorem
Gabriel Black
(Mentor: Min Shi)

Riemann Surface and Complex Analysis
Christine Lyu
(Mentor: Stefan Nikoloski)

Spring 2023
Directed Reading Program
Student Talks

Thursday April 20, 5:30 – 7:30pm
Friday April 21, 5:30 – 7:30pm
Saturday April 22, 1:30 – 3:30pm

The Ohio State University, Columbus, Ohio

Friday April 21, 2023

Recovering a Function in $\mathbb{R}^3$ from its Radon Transform
Isaac Shellabarger
(Mentor: Nicholas Castillo)

The Schwarzschild Metric and Birkhoff's Theorem
Pallav Pant
(Mentor: Ivo Terek)

Exploring Machine Learning
Mark Kikta and Umar Jara
(Mentor: Aziz Burak Gülen)

Matroids and the Greedy Algorithm
Gowrav Mannem
(Mentor: Kyle Binder)

What is the Role of Intuition in Mathematics?
Anton Fediukov
(Mentor: Amogh Parab)

Saturday April 22, 2023

Wiener Process for Stock Price
Haoran Ma and Shuo Chen
(Mentor: Michael Tychonievich)

The Development of Real Numbers
Cherish Brumley
(Mentor: Amogh Parab)

Real Analysis and Baire's Category Theorem for the Real Line
Zhengyang Liu and Qinuo Shi
(Mentor: Isaac Brown)

Four Polynomials: Motivations for Combinatorial Reciprocity Theorems
Haochen Wang
(Mentor: Yang Yang)

Counting Rational Plane Curves
Jacob Monzel
(Mentor: Deniz Genlik)

Directed Reading Program Organizing Committee

Ivo Terek
Shreeya Behera
Scott Newton
Kyle Binder
Amogh Parab
James Marshall Reber