

Fall 2022
Directed Reading Program
Student Talks

Thursday, December 1st, 5:30-7:30pm

Friday, December 2nd, 5:30-7:30pm

Saturday, December 3rd, 1:00-3:00pm

The Ohio State University, Columbus, Ohio

Thursday December 1st, 2022

“A Glimpse of p -adic Analysis”

Kabir Belgikar (Mentor: Jake Huryn)

“On the Poincaré Group”

Harrison Blake (Mentor: Makana Silva)

“Statistical Learning: Approximation Methods”

Vyom Dave (Mentor: Mario Gómez)

“The Birth of Analytic Number Theory – How L -functions
arose from counting primes”

Christine Lyu & Randall Rickel (Mentor: Shifan Zhao)

“Introduction to wavelets and advantages over Fourier series”

Jack Feds (Mentor: Adam Christopherson)

Friday December 2nd, 2022

“Mathematical models in nature: the SIR model and
Lotka-Volterra’s competition model”

Ryan Hardig & Yuchen Zhao (Mentor: James Marshall Reber)

“Smooth manifolds and the Frobenius theorem”

Pallav Pant (Mentor: Ivo Terek)

“Fermat’s Dream: Fermat’s Last Theorem for regular primes”

Alina Li & Wo Wu (Mentor: Stefan Nikoloski)

“Measure, Integration and Dominated Convergence Theorem”

Yumin Shen (Mentor: Thomas O’Hare)

“Sard’s Theorem”

Steven Speck (Mentor: Alexander Goldman)

“Factorization and the Rho Method”

Aaron Yoder (Mentor: Bhawesh Mishra)

Saturday December 3rd, 2022

“Symbolic dynamics and Shannon’s theory of communication”
Tong Du & Lena Zhang (Mentor: Caleb Dilsavor)

“TBD”
Pranav Jois (Mentor: Zach Davis)

“An Introduction to Algebraic Curves”
Jacob Monzel (Mentor: Deniz Genlik)

“Exploring Complex Systems: Analytic Methodologies and
Cross-Disciplinary Applications of Network Theory”
Daniel Tcheurekdjian (Mentor: Amogh Parab)

“TBD”
Yizhen Tong (Mentor: Brett Hungar)

Directed Reading Program Organizing Committee

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

The DRP Committee would like to thank all of the graduate student mentors for their work with their undergraduate students this semester. We would also like to thank the DRP’s advisor, Dr. Dan Thompson, as well as the OSU Math Department for providing funding for this program. Any graduate student who would like to serve on the committee may talk to a current committee member. Any graduate or undergraduate student wishing to participate in the program in the fall may apply by visiting go.osu.edu/drp at the beginning of next semester.