The Department of Mathematics
2021–22–A term

Course Name  Riemann Surfaces and Arithmetic
Course Number  201.2.0451
Lecturer  Dr. Daniel Disegni, disegni@bgu.ac.il, Office 108
Office Hours  https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading

 azure יושב על טמס: עבודה בית במשקל 10%; עבודה סוף במשקל 90%.

Course topics

1. Doubly periodic functions. Lattices, complex tori. The field of elliptic functions.

2. Riemann surfaces: definitions, maps, the genus, Riemann–Hurwitz formula.


4. Local study of holomorphic functions. Points of Riemann surfaces as valuations on the field of meromorphic functions. Classifications of the absolute values on the field of rational numbers. The field of p-adic numbers. The product formula.

5. Algebraic curves over a field. Algebraic curves over C and relation to Riemann surfaces.

1Information may change during the first two weeks of the term. Please consult the webpage for updates