





Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali / Thesis & Dissertation / Master of Science / MS-15

Please use this identifier to cite or link to this item: http://hdl.handle.net/123456789/1538

Title: Riemann Surfaces

Authors: Rahul, Kabeer Manali

Keywords: Riemann Surfaces The Complex Torus

Riemann-Roch theorem and Serre Duality

Hurwitz formula

Issue Date:

May-2020

Publisher:

Abstract:

IISER Mohali

Riemann Surfaces are important objects in the study of Algebraic Curves. In this thesis, we will begin by extending various concepts and results from Com- plex Analysis to Riemann surfaces. We will go on to describe the consequences of these concepts and results on a particular class of Riemann surfaces, the complex torus. We will then define various objects related to the Riemann surfaces, such as differential forms, divisors and spaces related to divisors. Finally, we shall discuss the Riemann-Roch theorem, Serre Duality and Abel's theorem. Above all, we will look at the relation between the geometric/topological structure (genus, homology) and the analytic structure (holomorphic maps, meromorphic functions and related spaces, differential forms) of the Riemann Surface.

URI: http://hdl.handle.net/123456789/1538

Appears in Collections:

MS-15

Files in This Item:

File	Description	Size	Format	
MS Thesis MS15152.pdf		804.76 kB	Adobe PDF	View/Open

Show full item record

di

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.