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Two dimensional orbifolds' volumes' spectrum

Praca magisterska
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Abstract

Orbifolds! Yeah!
Spectrums! Yeah!

Chapter 1

Introduction

Chapter 2

Different definitions of an orbifold

We will explore various definitions of an orbifold, partially proving they are equivalent, partially linking to the sources.

Some of these definitions apply only to the special cases. Some of them contain constructions with which not all orbifolds can be made (at least some of them can't be derived as such a priori) .

2.1 Hiperbolic plane tilling

2.2 Manifolds with defects

2.2.1 Disk and sphere with defects

2.3 Conway notation

reference

2.4 Generalised manifolds

This approuch is very simmlar to the previous one. It differs slightly where we put the difinition burden.

Chapter 3

Order structure

Chapter 4

Decidability

4.1 Algorithm

Here we will show the proof that the problem of deciding whether a given rational number is in an Euler orbicharacteristic's spectrum or not is decidable by showing algorithm for doing this.

We start with $\frac{p}{q}$, where $p \in \mathbb{Z}$ and $q \in \mathbb{N}$.

Chapter 5

Connection with modular forms

Chapter 6

Conclusions