Representing Homology Classes by Locally Flat Surfaces of Minimum Genus*

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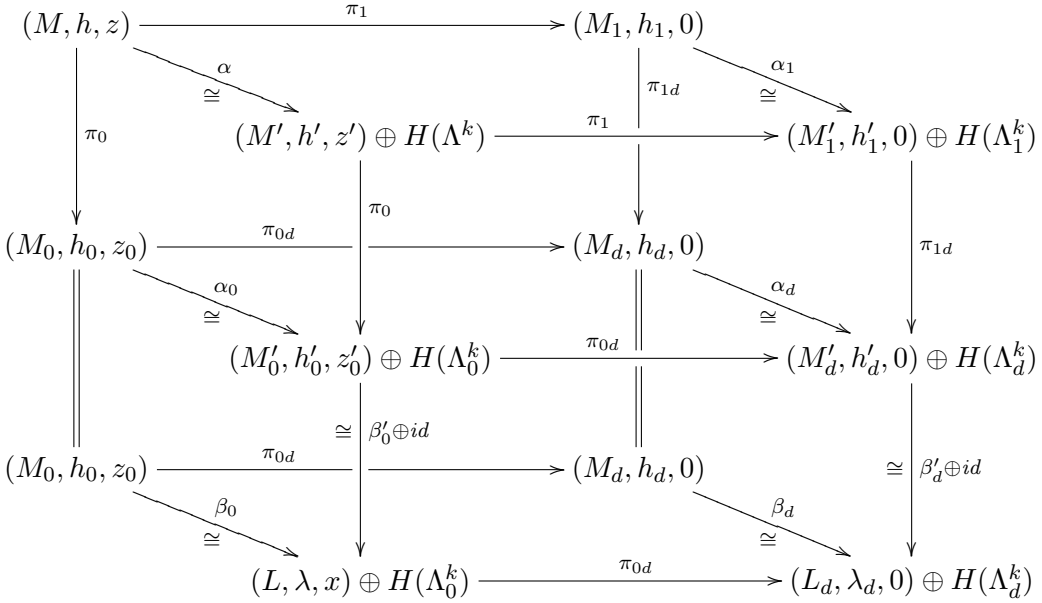
1 Introduction

A necessary and sufficient condition will be given for a nontrivial homology class of a simply connected 4-manifold to be represented by a simple, topologically locally flat embedding of a compact Riemann surface.

2 Splittings of Hermitian Modules

We begin with an algebraic result.

Theorem 1. *The following is a commutative diagram of pointed hermitian modules.*



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