

## **Abstract**

This Master thesis contains an introduction to the Stiefel-Whitney classes and describes how they can be used to determine if two manifolds belong (or do not belong) to the same cobordism group. Two manifolds are cobordant if they can be expressed as the boundary of a third one, and the relation between Stiefel-Whitney classes and cobordism is given by Thom's theorem. Classification of manifolds is an important problem, and in general hard for high dimensional manifolds. Diffeomorphisms and homotopy equivalence can be very difficult to compute, and cobordism can be a valid alternative.