Literature Guide for MA3002 Generell Topologi

Richard Williamson

January 2, 2014

The lectures will not follow a specific book. It is not required that you look up any other reference than the lecture notes. If you nevertheless are looking for books to support the lectures, here is a list of possibilities for the first part of the course.

Basic topology by M.A.Armstrong

This book is the closest I know of to the lectures I will give, but is still quite different in its presentation. It emphasises a geometric point of view in its treatment of point-set topology. The later chapters give an introduction to aspects of geometric and algebraic topology which we will touch upon in the second part of the course.

Topology by J.Dugundji

This is my favourite reference for point-set topology. Unfortunately, it is out of print and not so easy to find. Our point of view will be more geometric.

Elements of modern topology by R.Brown

The earlier chapters of this book cover the first part of our course from a point of view which is close to ours. The later chapters are closer to algebraic topology, upon which there is a course in the autumn. The original is out of print and not so easy to find, but there have been two reprints under different titles: the most recent is *Topology and groupoids*.

Mengentheoretische Topologie by B. von Querenburg

Whilst our emphasis will be more geometric, this book gives a thorough and concise treatment of point-set topology. I am not aware of an English translation.

Topologie Générale by J.Dixmier

This is quite a short book which, more than any of the other books on the list, emphasises the point of view of analysis. There is an English translation.

Topologie by K.Jänich

This book is very close to the spirit of the lectures, but is quite different in its choice of topics and in its presentation. In particular, we shall explore point-set topology in more detail. There is an English translation.

Topology by J.R.Munkres

The first edition of this book, or the first part of the second edition, is a popular reference for point-set topology. Our point of view will be more geometric.