AB Geometrie & Topologie
Prof. Bernhard Leeb, Ph.D.

Selected topics in complex analysis
Seminar WS 2024/2025
as of 13.10. 2024

The seminar is based on the course *Funktionentheorie* (One complex variable) from the previous semester and will focus on some of the rich variety of possible further topics:

- holomorphic continuation and Riemann surfaces

- harmonic functions and uniformisation

- conformal mapping of polygonal regions and periodic holomorphic functions

- Great Picard Theorem

- elliptic functions

Literature:

Ahlfors, *Complex analysis*, McGraw-Hill
Fischer, Lieb, *Funktionentheorie*, Vieweg
Fischer, Lieb, *Ausgewählte Kapitel aus der Funktionentheorie*, Vieweg
Freitag, *Funktionentheorie 1+2*, Springer
Remmert, Schumacher, *Funktionentheorie 1+2*, Springer

Prerequisites: basic courses in analysis (calculus) and linear algebra

Language: german and/or english, depending on the participants

For: students of mathematics or physics (bachelor, master)

Time+room: thursday 4:15-6:00 pm in room B 252

First talk: 24.10.

Registration: Please write me e-mail as soon as possible if you want to participate, and in any case **before** the first talk.