

Bachelor Thesis (Bakkalaureatsarbeit)

on the topic

“Structure-Acoustic Coupling”

- **Title:** Structure-Acoustic Coupling
- **Supervisor:** Dipl.-Ing. Dr. Martin Neumüller
- **Student:** Lukas Burgholzer
- **Abstract:** In many technical applications mechanical vibrations generate acoustic waves. On the other hand the acoustic pressure acts like a load on the mechanical structure. In this Bachelor Thesis we want to derive a mathematical model for the coupling of the mechanical structure with the acoustic fluid.
- **Road Map for the Bachelor Thesis:**
 1. Introduction
 2. Derivation of a model for the acoustic field
 3. Derivation of a model for the mechanical structure
 4. Coupling of the two models
 5. Conclusions
 6. References
- **Literature:** Lectures and Seminars (Proseminar) on Mathematical Models in Engineering
- **Additional Literature:** [?]