



Lecture announcement for summer semester 2025

Analytical Methods in Heat Transfer (V2/4CP)

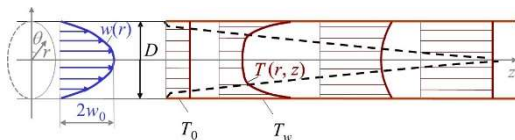
Apl. Prof. Dr. Sc. T. Gambaryan-Roisman

Information → Moodle

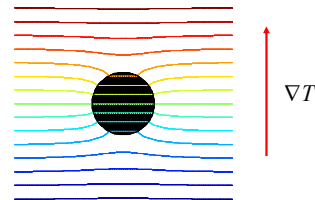
What? Lectures, Exercises
Where? L2 06/203
When? Wednesday, 9:50-11:30
Beginning: **23.04.2025**
Lecturer: Apl. Prof. Dr. Sc. T. Gambaryan – Roisman
Phone: (06151) 16-22264
e-mail: gtatiana@ttd.tu-darmstadt.de

Solution methods for linear problems

- Separation of variables
- Fourier series
- Sturm-Liouville problem
- Special functions
- Laplace transform and Fourier transform

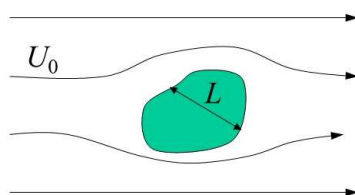


- ✓ Heat conduction
- ✓ Convective heat transfer
- ✓ Effective transport properties



Introduction to advanced solution methods and modeling of transport processes

- Perturbation theory
- Boundary layer theory
- Stability analysis



- ✓ Evaporation, condensation, solidification
- ✓ Stability and dynamics of thin liquid films

