

### **CHAMPP**

CENTER IN HAMBURG FOR ASTRO-, MATHEMATICAL AND PARTICLE PHYSICS

## LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

Winter Term 2024/2025

# **Introduction to High-Energy Astrophysics**

# Stephan Rosswog

### **Course Description:**

High-energy astrophysics comprises a broad range of phenomena the explanation of which covers a broad range of physical processes. Students will learn about model-building, about order of magnitude estimates (which are also very useful tools outside of astrophysics and an ability often sought for by consulting companies) and they will learn how to integrate "small scale physics problem solving" into the bigger astronomical picture.

## **Prerequisites:**

Mandatory: Theoretical Physics I-III

Recommended: General Relativity, Astrophysical Gasdynamics

#### Literature:

Introduction to High-Energy Astrophysics , Rosswog & Brueggen, Cambridge University Press, 2007

Date and Place:Tue, 10:00–13:00, 052, Building 69 BahrendfeldProblem Classes:Thu, 14:00–15:00, 052, Building 69 BahrendfeldStarting on:15 October 2024