

CHAMPP CENTER IN HAMBURG FOR ASTRO-, MATHEMATICAL AND PARTICLE PHYSICS

## LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

Summer Term 2024

## **Chemical Evolution of the Universe**

## Jochen Liske

## **Course Description:**

Which physical processes have shaped the abundances of all of the elements in the Universe? What drives the evolution of these abundances? This advanced M.Sc. lecture course will comprehensively cover this topic from both an observational and theoretical perspective. We will explore the background cosmology, primordial nucleosynthesis, stellar structure, nucleosynthesis and evolution, neutron capture processes and the basics of galactic chemical evolution models. While not strictly required, it is definitely helpful to be aware of the contents of both parts of the B.Sc. introductory astronomy course. The course language is English.

Date and Place: Problem Classes: Starting on: Thu, 14:15–15:45, SR 3114, Bahrenfeld Thu, 16:00–17:30, SR 3114, Bahrenfeld 4 April 2024