



Universität Hamburg

DER FORSCHUNG | DER LEHRE | DER BILDUNG

CHAMPP

CENTER IN HAMBURG FOR  
ASTRO-, MATHEMATICAL AND  
PARTICLE PHYSICS

LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

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Summer Term 2019

# Introduction to String Theory

G. Arutyunov

## Course Description:

The course covers the basic concepts of modern string theory. This includes covariant and light-cone quantisation of bosonic and fermionic strings, geometry and topology of string world-sheets, vertex operators and string scattering amplitudes, world-sheet and space-time supersymmetries, elements of conformal field theory, Green-Schwarz superstrings, strings in curved backgrounds, low-energy effective actions, D-brane physics.

## Prerequisites:

Quantum Field Theory I/Quantum Mechanics II, Special Relativity

**Date and Place:** Wed, 13:00 – 14:30, SR 2, Building 2a, Bahrenfeld  
Thu, 9:15 – 10:45, SR 2, Building 2a, Bahrenfeld

**Starting on:** 3 April 2019

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