MAP50002: String Theory

| Semester taught | Hillary Term |
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| Module Coordinator | Marius de Leeuw |
| Credits | 10 ECTS |
| Content | This course offers an introduction to string theory. The students will work with the Nambu-Goto and Polyakov actions for the bosonic and superstring. After this the string will be quantised and the string spectrum will be derived. Vertex operators will be introduced and scattering amplitudes derived. The Einstein equations will be derived by considering strings in background fields. |
| Learning Outcomes | Formulate and solve the equation of motion and Virasoro constraints for the boson string. Perform the canonical quantisation of the bosonic string. Understand T-duality. Define string vertex operators and compute scattering amplitudes. |
| Assessment detail | 50% continuously assessment and 50% online examination |