Cosmology
Part III Mathematical Tripos

- **Classes**: M.W.F. 10, MR3.
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The complete lecture notes can be downloaded [here](#).
The complete lecture scripts can be downloaded [here](#).

**Preface**

1. **Geometry and Dynamics** [lecture notes, lecture script]
   Robertson-Walker Spacetime. Kinematics. Dynamics. ΛCDM.

2. **Inflation** [lecture notes, lecture script]
   Horizon Problem. Slow-Roll Inflation.

3. **Thermal History** [lecture notes, lecture script]

4. **Cosmological Perturbation Theory** [lecture notes, lecture script, Mathematica]

5. **Structure Formation** [lecture notes, lecture script]

6. **Initial Conditions from Inflation** [lecture notes, lecture script]
   Quantum Field Theory in de Sitter Space. Zero-Point Fluctuations.