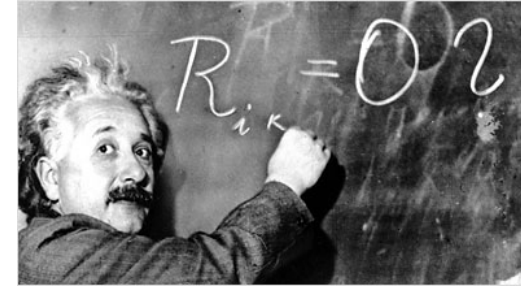


Advanced General Relativity

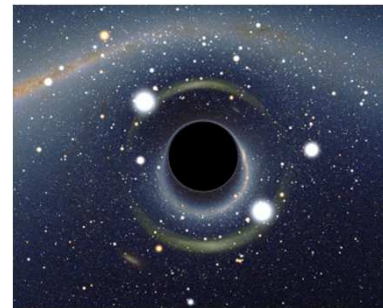
- Roberto Emparan
- Jaume Garriga
- Enric Verdaguer

- Pre-requisite: Introductory course to General Relativity

What will you learn?

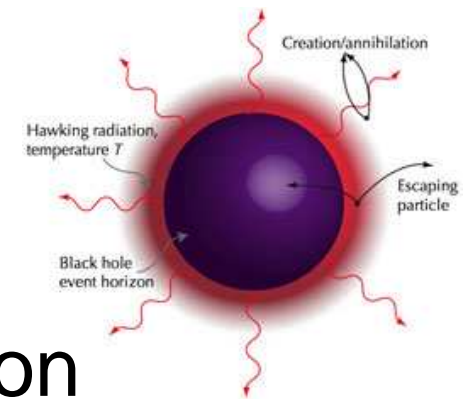


- Advanced techniques in GenRel
 - Lagrangian formulation, Causal Structure (Horizons)...

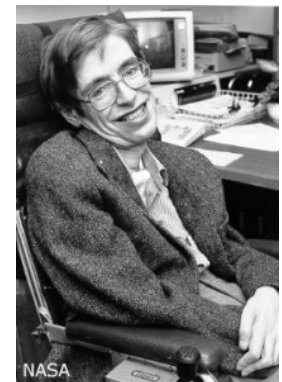


- Black Holes

- Classical theory
- Quantum effects – Hawking radiation
- Black hole thermodynamics

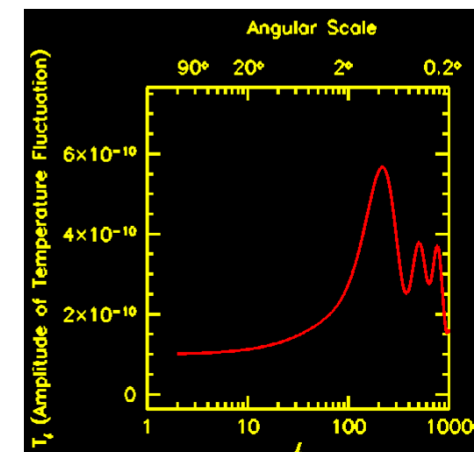
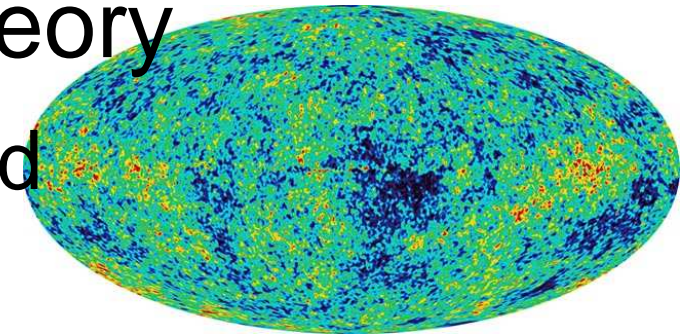
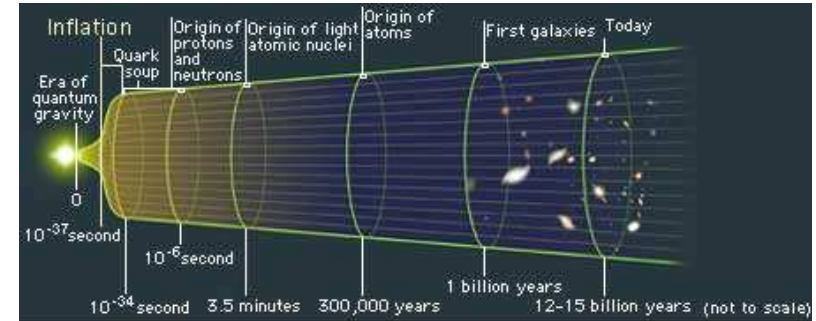


- Basic notions in Quantum theory of Gravity



What will you learn?

- Relativistic Cosmology
 - FRW universe
- Cosmological perturbation theory
 - Cosmic Microwave Background
- Inflationary Universe
 - Origin of primordial fluctuations & large-scale structure



What is the course like?

- Theoretical – be ready for math
- On blackboard – we'll go into details
- Homework (weekly): essential practice + evaluation