Selection of chapters from *Cosmology*, by Coles & Lucchin

> recommended for the course **Cosmology** Vincent Icke Spring 2005

The chapters from the recommended textbook that are most parallel to the treatment I presented in the lectures are listed below. Due to time limitations, I have had to make a selection of the topics that can be treated in a single semester. Note that the order in the book is rather different from the sequence in my lectures, but the material is similar.

Chapter 1. First Principles 1.1-6, 1.9-13

Chapter 2. The Friedmann Models 2.1-8

Chapter 5. Thermal History 5.1-6

Chapter 6. The Very Early Universe 6.1-5 (important, but will not be part of the exam)

Chapter 7. Phase Transitions and Inflation 7.7-12 (important, but will not be part of the exam)

Chapter 8. The Lepton Era 8.6

Chapter 9. The Plasma Era 9.1-5

**Chapter 10. Introduction to Jeans Theory** 10.4-7, 10.9

Chapter 13. Cosmological Perturbations 13.1-2, 13.4, 13.6

Chapter 17. The Cosmic Microwave Background 17.1-5