

Preface

This book contains the proceedings of **Historical Development of Modern Cosmology**, an international summer school held at the Palau de Pineda in Valencia from 18th to 22nd September 2000.

Cosmology was born as a modern science in 1917, when Einstein applied his recently created theory of General Relativity to the description of the Universe as a whole. Since then much progress has been made in both theoretical and observational studies, both resting heavily on technological development experienced during the last decades.

Our vision of the Universe has drastically changed in the last 80 years: a change comparable to, perhaps, the Copernican revolution. Since the end of the 30's we have at our disposal a new paradigm, called the Big Bang, which provides the best available picture of the evolution of the universe back to very early times, though it has never been entirely free of controversy, and new problems may be looming.

The aim of this school was to review how our concept of the Universe has changed in the last century. In order to achieve this, lectures from cosmologists, astronomers, particle physicists, and historians of science were included. Lecturers provided the students with the necessary introduction and put theories into perspective, indicating recent developments where appropriate, without giving too many technical details. Therefore the school was, we hope, useful for people from all of these backgrounds.

All of the invited lectures appear in these proceedings, apart from that by John Barrow *large numbers: coincidences and the enigma of variations*. Also included are some notes on the Steady State model by Thomas Gold, who was, at the last moment, instructed by his physician not to cross the Atlantic.

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