

Einsteins Kosmos

Untersuchungen zur Geschichte der Kosmologie, Relativitätstheorie und zu Einsteins Wirken und Nachwirken.

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This book collects about 15 papers (most of them by one single author) on Einstein and the history of general relativity (GR) and the foundations of relativistic cosmology. The matter not only deals with Einstein and his times, but also with pre-GR ideas, and with the interplay of Einstein and his colleagues (opposing as well as supporting personalities). As the title indicates, all papers are written in German, but they include comprehensive Abstracts both in German and English. The book is illustrated with quite a number classical – but also some far more original though not less beautiful – photographs and facsimiles of documents. The book is edited very well, though the style of references is not quite homogeneous. There is no Index.

K. Hentschel covers Einstein's argumentation for the existence of gravitational redshift, and the initial search for empirical support. The error analysis of observational evidence supporting relativistic light deflection is discussed in a paper by P. Brosche. In particular, H. Duerbeck and P. Flin – in their description of the life and work of Silberstein, who was quite sceptic on the significance of the observational verifications *à la Eddington* – include the transcription of two most revealing letters by Silberstein to Sommerfeld (1919) and to Einstein (1934). In the first letter, Silberstein clearly shows his scientific maturity and integrity by scrutinising the observational evidence supporting light deflection, presented at a joint meeting of the Royal Society and the Royal Astronomical Society. The second letter, which is more a personal letter, includes lots of political references and connotations. Some of Einstein's political views are also revealed by D.B. Herrmann on the basis of his own correspondence with E.G. Straus, a collaborator of Einstein's. In a consequent paper, S. Grundmann gives remarks on Herrmann's contribution and illustrates Einstein's attitude towards Marx, Engels, Lenin and Stalin. M. Schemmel discusses Schwarzschild's cosmological speculations, and wonders why some people do immediately grasp the meaning and consequence of newly proposed doctrines, whereas the bulk of the contemporaneous scientists respond in a rather low profile.

T. Jung reviews Einstein's contribution to cosmology, leading to the Friedmann-Einstein and Einstein-de Sitter universes (with a detailed Appendix on the Friedmann-Lemaître cosmology), and also presents the cosmological work of Selety, and his correspondence with Einstein. In a subsequent paper, H.-J. Schmidt comments on Einstein's criticism on de Sitter's solution of the

Einstein field equations.

Controversies with Einstein are elaborated by G. Singer (on Friedmann) and by K. Roessler (on Lemaître). J. Renn and T. Sauer discuss Mandl's role in the publication history of Einstein's papers, notably Einstein's short paper on gravitational lensing.

Finally, the book concludes with a contribution by D.B. Herrmann about the relationship between Einstein and Archenhold Observatory (where Einstein gave his first Berlin popular lecture in 1915), the transcription of H.-J. Treder's 1979 public address at the Einstein memorial plaque, and an inventory list of about 50 Einstein memorabilia – monuments, busts, plaques – compiled by W.R. Dick.

This book is based on ideas approached in a historical context from the individual perspective of the authors. It is a real treasure trove of information and basic references on the history of GR, and it also covers quite some grounds with mathematical equations.

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