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Did time begin? Will time end? (English) [Zbl 1198.85001](#)

Hackensack, NJ: World Scientific (ISBN 978-981-4280-58-7/hbk; 978-981-4280-60-0/ebook). vii, 108 p. (2010).

There is a constant change process in the observed part of the universe. And this change process does not allow us to identify time begin and time end in the universe. By using present-day information on the universe the following three options of the evolution of the universe are discussed, analysed and studied in this book:

- 1) The currently observed expansion of the universe will end after a finite time. In a cyclic universe, time had no beginning and will have no end.
- 2) The currently observed expansion of the universe will end after a finite time in a Big Rip. Time began some 13.7 billion years ago and will end some trillion years in the future.
- 3) The currently observed expansion of universe will continue for an infinite time as a constant. Time began 13.7 billion years ago and will never end.

All people who are interested in the evolution of the observed part of the universe can benefit from this book.

Reviewer: [Gasanbek T. Arazov \(Baku\)](#)

MSC:

- [85-01](#) Introductory exposition (textbooks, tutorial papers, etc.) pertaining to astronomy and astrophysics
- [85A40](#) Cosmology
- [00A79](#) Physics (Use more specific entries from Sections 70-XX through 86-XX when possible)
- [83F05](#) Cosmology
- [97M50](#) Physics, astronomy, technology, engineering (aspects of mathematics education)
- [83C05](#) Einstein's equations (general structure, canonical formalism, Cauchy problems)
- [03A05](#) Philosophical and critical aspects of logic and foundations

Keywords:

[time begin](#); [time end](#); [Big Bang](#); [Big Rip](#); [Universe](#)

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