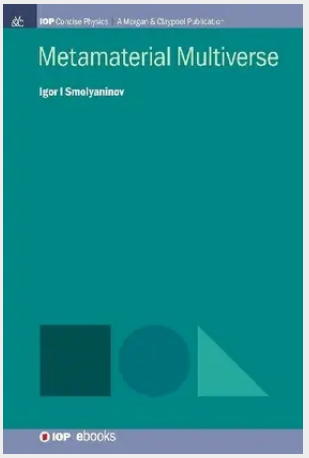
IOP Concise Physics

# Metamaterial Multiverse

Many physical properties of our universe, such as the relative strength of the fundamental interactions, the value of the cosmological constant, etc., appear to be fine-tuned for existence of human life. One possible explanation of this fine tuning assumes existence of a multiverse, which consists of a very large number of individual universes having different physical properties. Intelligent observers populate only a small subset of these universes, which are fine-tuned for life. In this book we will review several interesting metamaterial systems, which capture many features of important cosmological models and offer insights into the physics of many other non-trivial spacetime geometries, such as microscopic black holes, closed time-like curves (CTCs) and the Alcubierre warp drive.

Many physical properties of our universe, such as the relative strength of the fundamental interactions, the value of the cosmological constant, etc., appear to be fine-tuned for existence of human life. One possible explanation of this fine tuning assumes existence of a multiverse, which consists of a very large number of individual universes having different physical properties. Intelligent observers populate only a small subset of these universes, which are fine-tuned for life.In this book we will review several interesting metamaterial systems, which capture many features of important cosmological models and offer insights into the physics of many other non-trivial spacetime geometries, such as microscopic black holes, closed time-like curves (CTCs) and the Alcubierre warp drive.




**76,20 €**
76,20 € (zzgl. MwSt.)

*Lieferfrist: bis zu 10 Tage*

**Artikelnummer:** 9781643273693
**Medium:** Buch
**ISBN:** 978-1-64327-369-3
**Verlag:** IOP Concise Physics
**Erscheinungstermin:** 29.11.2018
**Sprache(n):** Englisch
**Auflage:** Erscheinungsjahr 2018
**Produktform:** Gebunden
**Gewicht:** 370 g
**Seiten:** 117
**Format (B x H):** 183 x 260 mm



**Kundenservice Verlag Dr. Otto Schmidt KG**
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)