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Sommario/riassunto	Primordial black holes (PBHs) were proposed more than 50 years ago as black holes possibly formed across a vast mass range in the early universe. They represent a unique probe to access the primordial universe and cosmological inflation. Furthermore, in certain mass ranges, they could comprise the entirety of the dark matter, seed supermassive black holes at high redshift, be responsible for some gravitational-wave events detected so far, and be novel gravitational-wave sources detectable with future instruments. However, detecting PBHs has proved to be extremely challenging and extensive research focused on setting a variety of constraints on the fraction of dark matter composed by these objects. This book highlights an up-to-date, comprehensive overview on this subject, including pedagogical details on the PBH formation scenarios, cosmological evolution, astrophysical

implications, connections with gravitational-wave astronomy, and critical discussion of the latest and future constraints. At variance with all existing reviews on this subject, this book addresses graduate students and researchers not necessarily familiar with all areas of the topic, providing details on important key results rather than collecting and reviewing the latest literature. The topic is naturally interdisciplinary and connects areas as diverse as cosmology, particle physics, gravitational-wave astronomy, and numerical simulations. To reflect this diversity, the book includes 25 contributions from key researchers working in these different areas. It provides a unique reference both to approach the topic for the first time and to learn a specific specialized sub-area.