

1. Record Nr.	UNINA9910826554203321
Autore	Bloom Joshua S. <1974->
Titolo	What are gamma-ray bursts? // Joshua S. Bloom
Pubbl/distr/stampa	Princeton, : Princeton University Press, c2011
ISBN	1-4008-3700-6 9786613001283 1-283-00128-4
Edizione	[Course Book]
Descrizione fisica	1 online resource (271 p.)
Collana	Princeton frontiers in physics
Classificazione	US 1670
Disciplina	523.01/97222
Soggetti	Gamma ray bursts Stars - Formation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- CONTENTS -- Preface -- 1 Introduction -- 2. Into the Belly of the Beast -- 3. Afterglows -- 4. The Events in Context -- 5. The Progenitors of Gamma-Ray Bursts -- 6. Gamma-Ray Bursts as Probes of the Universe -- NOTES -- Suggestions for Further Reading -- Glossary -- Index
Sommario/riassunto	Gamma-ray bursts are the brightest--and, until recently, among the least understood--cosmic events in the universe. Discovered by chance during the cold war, these evanescent high-energy explosions confounded astronomers for decades. But a rapid series of startling breakthroughs beginning in 1997 revealed that the majority of gamma-ray bursts are caused by the explosions of young and massive stars in the vast star-forming cauldrons of distant galaxies. New findings also point to very different origins for some events, serving to complicate but enrich our understanding of the exotic and violent universe. What Are Gamma-Ray Bursts? is a succinct introduction to this fast-growing subject, written by an astrophysicist who is at the forefront of today's research into these incredible cosmic phenomena. Joshua Bloom gives readers a concise and accessible overview of gamma-ray bursts and the theoretical framework that physicists have developed to make sense of complex observations across the electromagnetic spectrum. He traces the history of remarkable discoveries that led to our current

understanding of gamma-ray bursts, and reveals the decisive role these phenomena could play in the grand pursuits of twenty-first century astrophysics, from studying gravity waves and unveiling the growth of stars and galaxies after the big bang to surmising the ultimate fate of the universe itself. *What Are Gamma-Ray Bursts?* is an essential primer to this exciting frontier of scientific inquiry, and a must-read for anyone seeking to keep pace with cutting-edge developments in physics today.

---