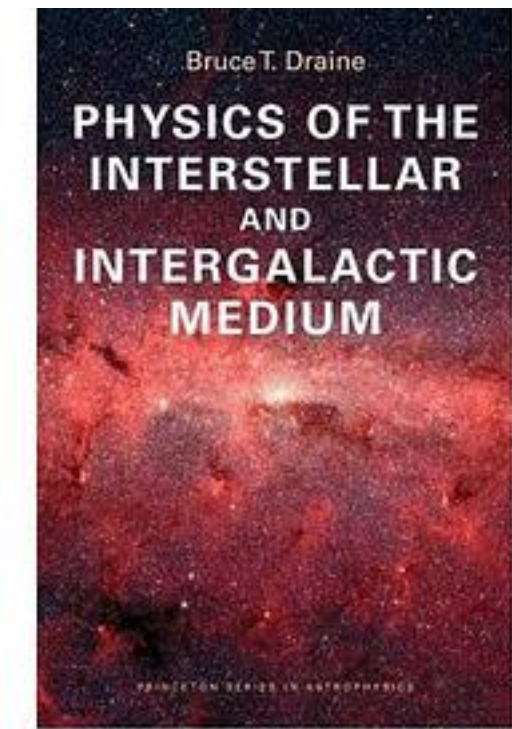


# Physics of the Interstellar and Intergalactic Medium



[Physics of the Interstellar and Intergalactic Medium\\_ 下载链接1](#)

著者:Bruce T. Draine

出版者:Princeton University Press

出版时间:2010-12-20

装帧:Hardcover

isbn:9780691122137

This is a comprehensive and richly illustrated textbook on the astrophysics of the interstellar and intergalactic medium - the gas and dust, as well as the electromagnetic radiation, cosmic rays, and magnetic and gravitational fields, present between the stars in a galaxy and also between galaxies themselves. Topics include radiative processes across the electromagnetic spectrum; radiative transfer; ionization; heating and cooling; astrochemistry; interstellar dust; fluid dynamics, including ionization

fronts and shock waves; cosmic rays; distribution and evolution of the interstellar medium; and, star formation. While it is assumed that the reader has a background in undergraduate-level physics, including some prior exposure to atomic and molecular physics, statistical mechanics, and electromagnetism, the first six chapters of the book include a review of the basic physics that is used in later chapters. This graduate-level textbook includes references for further reading, and serves as an invaluable resource for working astrophysicists. Essential textbook on the physics of the interstellar and intergalactic medium, it is based on a course taught by the author for more than twenty years at Princeton University. It covers radiative processes, fluid dynamics, cosmic rays, astrochemistry, interstellar dust, and more. It discusses the physical state and distribution of the ionized, atomic, and molecular phases of the interstellar medium. It reviews diagnostics using emission and absorption lines. It features color illustrations and detailed reference materials in appendices. It includes instructor's manual with problems and solutions (available only to teachers).

### 作者介绍:

Bruce T. Draine is professor of astrophysical sciences at Princeton University and a member of the National Academy of Sciences.

### 目录:

[Physics of the Interstellar and Intergalactic Medium\\_ 下载链接1](#)

## 标签

星际介质

星系际介质

天体物理

## 评论

-----  
[Physics of the Interstellar and Intergalactic Medium\\_ 下载链接1](#)

书评

-----  
[Physics of the Interstellar and Intergalactic Medium\\_下载链接1](#)