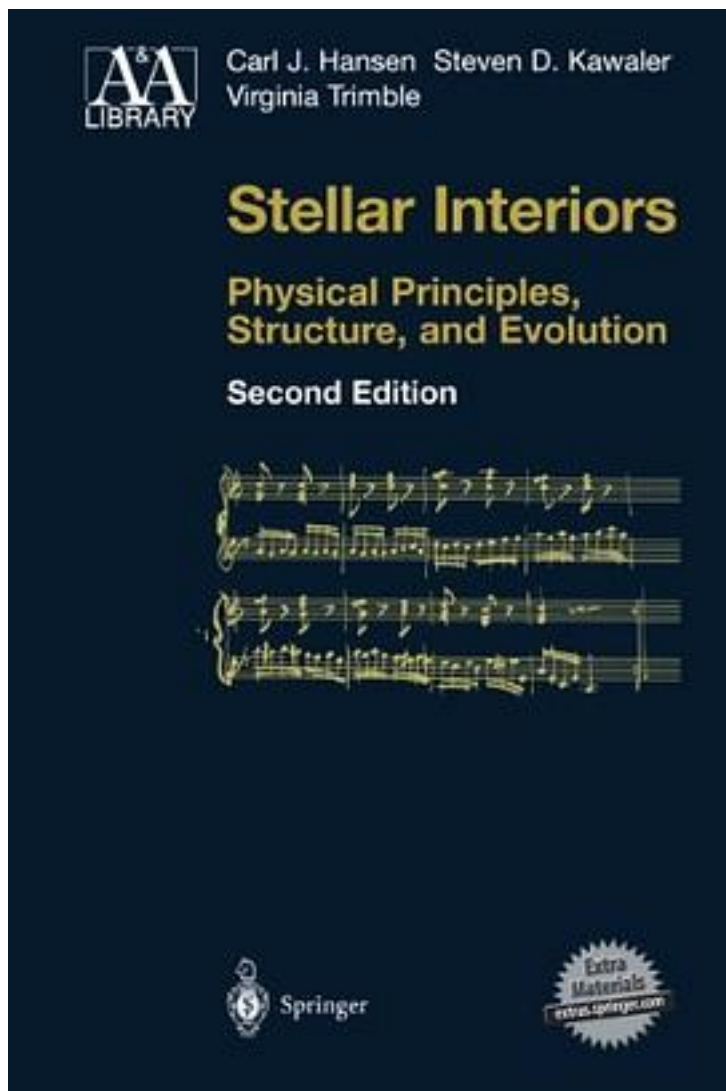


Stellar Interiors



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This text, designed for beginning students of stellar physics, introduces the fundamentals of stellar structure and evolution. In emphasizing the general picture of the life cycles of stars and the physics responsible, it also allows prospective specialists a taste of many of the detailed aspects of this mature discipline. The authors develop a solid foundation in important theory that is often overlooked in typical courses, yet steer clear of extraneous intensive mathematics and physics. Topics include nuclear physics and stellar energy sources, the equation of state of stellar material, phenomenological approaches to convection, and modern numerical techniques for computation of stellar evolution. Keeping pace with recent developments, the authors incorporate important elements such as asteroseismology, and the effects of rotation and magnetic fields. The text contains the source code for two useful programs, ZAMS (for constructing chemically homogeneous zero-age main sequence models) and PULS (to study the seismological properties of the ZAMS models). Some chapters include exercises. The new edition will be updated throughout to incorporate new observational and theoretical insights, and the programs will be updated to modern standards.

作者介绍:

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