7-2006

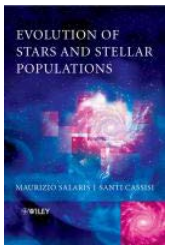
Book Review: Evolution of Stars and Stellar Populations

T. D. Oswalt
Florida Institute of Technology, oswaltt1@erau.edu

Scholarly Commons Citation

Oswalt, T. D. (2006). Book Review: Evolution of Stars and Stellar Populations. *Choice Reviews, 43*(11). https://doi.org/10.5860/CHOICE.43-6503

Evolution of stars and stellar populations



Salaris, Maurizio. by Maurizio Salaris and Santi Cassisi Wiley, 2005

374p, 047009219X $150.00, 047009219X $60.00
LC Call Number: QB806

Salaris (Liverpool John Moores Univ., UK) and Cassisi (INAF-Astronomical Observatory of Collurania, Italy) have prepared an excellent work in stellar population studies, where stellar and galactic structures merge. Written from the perspective that stars are the basic building blocks of clusters and galaxies, this book explores fairly rigorously how understanding the nuclear and evolutionary processes of stars affects the observed properties of entire stellar systems. Compared with other books on stellar astrophysics, this one takes an unconventional approach. Beginning with an opening chapter on cosmology and nuclear physics, the book builds, chapter by chapter, to a level allowing readers to understand how vast assemblages of stars and even unresolved galaxies at the edge of the observable universe can be interpreted. Whenever necessary, the book also describes how various governing physical equations can be mathematically solved to derive observable properties such as color-magnitude diagrams of clusters, light curves of supernovae, stellar luminosity functions, etc. Because of the enormous breadth of the subjects, the book cannot easily stand on its own as a full treatment of stellar astrophysics, but it is ideal as a course resource. A must have.

Summing Up: Essential. Upper-division undergraduates through faculty.

Reviewer: T. D. Oswalt, Florida Institute of Technology
Recommendation: Essential
Readership Level: Upper-division Undergraduates, Graduate Students, Researchers/Faculty
Interdisciplinary Subjects:
Subject: Science & Technology - Astronautics & Astronomy
Choice Issue: jul 2006 vol. 43 no. 11
Choice Review #: 43-6503
Review DOI: 10.5860/CHOICE.43-6503