Book by IISc Professor gets reviewed by Nobel laureate and is selected as an “Outstanding Academic Title of 2010”

A book *Astrophysics for Physicists* written by Arnab Rai Choudhuri, Professor of Physics in IISc, has been published by Cambridge University Press in March 2010. This book is based on the course *Fundamentals of Astrophysics* offered regularly in IISc.

This book has been listed as an “Outstanding Academic Title of 2010” in *Choice*, the magazine of American Library Association. This list is available at the website


which asks for Username and Password. However, one can enroll for a free trial subscription for 2 months and see the list. Professor Choudhuri's book is listed under “Astronautics & Astronomy”.

A review of the book by George Smoot, winner of the 2006 Physics Nobel Prize, has appeared in January 2011 issue of *Physics Today*. Some excerpts from this review are given here: “As one would anticipate from the author's background in solar magnetohydrodynamics, *Astrophysics for Physicists* contains good passages on fluids, plasmas, magnetic fields, and general relativity, and it provides strong mathematically based discussions of many of the important areas of astrophysics. It stresses theory, but also discusses several experimental and observational topics. ... To Choudhuri's credit, the book is overall fairly up to date in most areas. ... *Astrophysics for Physicists* represents a useful learning framework and theoretical reference tool for the newcomer and a quick reference for those working in related areas. Overall I rate it as a solid up-to-date text.”

Comments of other well-known scientists are quoted below.

“At last! An astrophysics textbook for physics majors that does not shy away from fluids, plasmas, and general relativity. With transparent physical reasoning and beautifully clear writing throughout, this book should become the standard for advanced undergraduate courses, and recommended reading for beginning graduate students. An outstanding complement to Choudhuri's previous masterwork, *The Physics of Fluids and Plasmas.*” Professor Mitchell C. Begelman, University of Colorado, Author of *Gravity's Fatal Attraction: Black Holes in the Universe*

“An outstanding textbook. Choudhuri provides a lucid treatment of key physical principles underlying various branches of modern astrophysics. This book should be required reading for any serious student or practitioner of physics. Indeed, many insightful discussions in the book would be useful even to professional astrophysicists.” Professor Ramesh Narayan, Harvard University

“This book is distinguished by a winning combination of breadth and depth. It provides an exposition of the main topics of modern astrophysics, including subjects that have not been traditionally covered in textbooks of this kind (such as stellar dynamics, plasma astrophysics, physical cosmology and general relativity). Each of the main topics is presented in sufficient detail - emphasizing the basic physics and including relevant exercises - for the reader to gain a basic understanding and likely also an appetite for further study (for which ample references and guidance are given). A similar approach was adopted in Choudhuri's previous textbook - *The Physics of Fluids and Plasmas* - which has been very popular with my students.” Professor Arieh Königl, University of Chicago

“In my opinion this is an excellent book that could be used in a core course to
physicists. I feel that the topics covered will make an exciting course, since the book is set at the right level, with emphasis on basic derivations, physical explanations, and experimental data. I should make it clear that this book is a major contribution, and largely succeeds in its objective of synthesising the diverse topics of astrophysics that a physics student will find exciting. The book is very well-written.” Professor Rajat K. Bhaduri, McMaster University, Author of *Structure of the Nucleus*

This book is now available in a South Asian edition (for sale in South Asia only) priced at Rs. 495/-