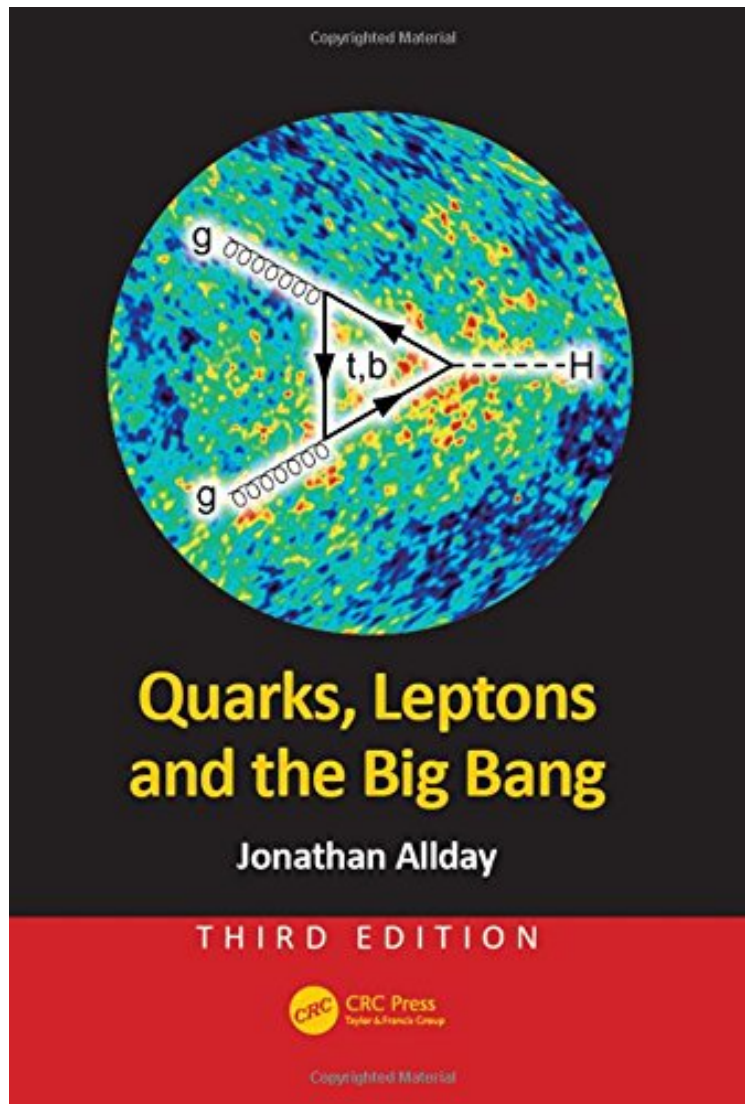


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Jonathan Allday : Quarks, Leptons and the Big Bang, Third Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Quarks, Leptons and the Big Bang, Third Edition:

Quarks, Leptons and The Big Bang, Third Edition, is a clear, readable and self-contained introduction to particle physics and related areas of cosmology. It bridges the gap between non-technical popular accounts and textbooks for advanced students. The book concentrates on presenting the subject from the modern perspective of quarks, leptons

and the forces between them. This book will appeal to students, teachers and general science readers interested in fundamental ideas of modern physics. This edition brings the book completely up to date by including advances in particle physics and cosmology, such as the discovery of the Higgs boson, the LIGO gravitational wave discovery and the WMAP and PLANCK results.

"The third edition of the excellent and engaging Quarks, Leptons and the Big Bang is both welcome and timely. It provides a comprehensive and well-structured introduction to a range of topics that are amongst the deepest and most fascinating in the whole of physical science. The field continues to develop rapidly, so there is always a need for texts that are clear and authoritative, as well as up-to-date. Allday's book meets all these requirements admirably but continues to be particularly distinguished by its level of presentation and intent to carry readers with it. Written to be accessible to school students, it provides an account that is as simple as it can be but no simpler than it should be. It is written by an expert teacher who is clearly determined to extend the knowledge and understanding of his readers while continuing to capture their interest and fuel their enthusiasm. Recent breakthroughs such as the discovery of the Higgs boson, the revelation of non-zero neutrino masses, and the direct detection of gravitational waves are well treated but one of the most striking features of the new edition is the revised coverage of quantum field theory the fundamental language of particle physics. Allday is never afraid to say when a topic is too technical to cover in detail but nor does he leave the reader in any doubt when such detailed treatments are available for more advanced students. In this way, his readers not only get a great introduction to particle physics and cosmology but they are also shown the golden road that can lead them on to further study and deeper insight. This book deserves a wide audience of students, teachers and ambitious general readers. I am sure that users of this third edition of Quarks, Leptons and the Big Bang will appreciate its coverage and comprehensibility just as much as readers of the earlier editions have done." Robert Lambourne, Professor of Educational Physics, The Open University "It is terrific to see a newly updated edition of one of my favourite textbooks. Undergraduates doing first year physics will appreciate this book because it captures much of the excitement of frontier particle physics and astrophysics in a very accessible way. I also think it will be a hit with students who are studying other scientific disciplines who seek a deeper understanding of how fundamental physics relates to their own areas of specialization. For instance, chemists will learn where and when the elements in the Periodic Table are created, and scientists of all persuasions will get some insight into why there is anything at all in the Universe. Allday's book is almost unique in terms of the range of material covered at this level and the new chapters in this edition cover recent discoveries in both particle physics and astrophysics and bring the book nicely up to date." Prof. Roberto Abraham, University of Toronto

About the Author Jonathan Allday has taught physics in schools for 30 years, latterly at the Royal Hospital School in the UK. After completing his Natural Sciences degree at Cambridge, he moved to Liverpool University for a PhD in particle physics, working on one of the last bubble chamber experiments at CERN. During this time, he was invited to join a group developing particle physics resources and syllabuses for examination at 16-18 level in the UK. From this work came the conviction that a book on particle physics and cosmology could be written that covered the material at a more detailed level than traditional popular accounts, yet still be accessible to those with a school-level understanding of maths and physics. Quarks, Leptons and the Big Bang was the result. Dr Allday has since gone on to write a range of other books on the Apollo missions, quantum theory and textbooks for schools. He regularly contributes articles to Physics magazine and spent a period as co-editor of Physics Education. He lives just outside Ipswich in the UK with his wife and three children who are much sportier than he is, and one of whom is currently studying Physics at Bristol University.