

Preface

It is easy to understand that the structure as well as the value of a book depends essentially on the author's experience in the chosen field and on the readers for whom it is intended. After accumulating experience over many years of research and teaching, I felt the need to share my knowledge in theoretical nuclear physics with people whom I don't know.

Many of the procedures described in this book are different from the traditional ones, and also very powerful in describing the experimental data. In this context, I express my belief that real progress in our field may be achieved only by constantly trying something new. Although nowadays it is fashionable to concentrate on numerical analysis with complicated codes, this book is mostly based on analytical calculations which are to be used in numerical calculations. Over the years, I have had valuable collaborations with many outstanding physicists from all over the world. From each of them I have learned many new things. Now, it is a challenge for me to integrate their influences in a single style of presentation, so as to optimize the impact on readers. Let me mention the list of my collaborators from abroad to whom I will always be grateful for both illuminating discussions on the subject of this book and financial support: Profs. R.M. Dreizler, A. Faessler, N. Lo Iudice, E. Moya de Guerra, L. Zamick. Special thanks I owe to my friend Dr. A.C. Gheorghe for the wonderful and fruitful collaboration. Many of my Ph.D. students have chosen for their thesis subjects related to this work. To avoid forgetting to mention any one of them, I don't give the long list with their names but, instead, I thank them all at one go, but most heartily.

A special contribution was made by my wife Emilia who has always been near me, her affection helping me to have sufficient strength to accomplish this project and, at the same time, to continue with my normal activities. I thank her immensely for what she represents and does for me.

People who fail in explaining some of the existing data with the approaches they have at hand are advised to consult this work. I honestly hope that they will either find the solution here or be inspired to exploit the coherent state field to overcome the difficulties encountered. Of course readers will be the true judge of the validity and usefulness of my proposal. I certainly look forward to receive an echo from them.

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<http://www.springer.com/978-3-319-14641-6>

Nuclear Structure with Coherent States

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2015, XI, 521 p. 121 illus., Hardcover

ISBN: 978-3-319-14641-6