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among physics students and researchers so that the need for a third edition has arisen. There was no need for a major revision of the text but I have taken the opportunity to make several amendments and improvements. A number of misprints and minor errors have been corrected and a few clarifying remarks have been added at various places. A few figures have been added or revised, in particular the three-dimensional density plots in Chap. 9. I am grateful to several colleagues for helpful comments, in particular to Prof. R.A. King (Calgary) who supplied a comprehensive list of corrections. I also thank Dr. A. Scherdin for help with the figures and Dr. R. Mattiello who has supervised the preparation of the third edition of the book. Furthermore I acknowledge the agreeable collaboration with Dr. H. 1. Kolsch and his team at Springer-Verlag, Heidelberg.

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