

- Ch.1 1. Eq.(1.1.9): spend a few words on the classical LD-picture and the quantization (maybe by ref. to BM)
2. Fig.1.1.1: explain the dashed lines, shown in the inset; explain the double-parabola
 3. Fig.1.1.3 , 1.1.4: poor quality
 4. p.20: unclear sentences:
 - "This behaviour is to be found..." that sentence mixes up a variety of phenomena which better should be discussed in separate sentences - "...which change in one unit..." the same is true for this sentence. Such highly condensed statements appear repeatedly also at other instances of the text. For those readers using the book as an introductory text to and/or a study text for nuclear theory, this might pose severe problems.
 5. Eq.(1.2.3) etc. : explain κ , explain \hat{a}
 6. Eq.(1.2.6): point out that the proper in-medium interaction has to be used to. e.g. $v = v(\vec{x}, \rho)$
 7. Fig. 1.2.1: poor quality
 8. Footnote: RPA sums the bubble or ring diagrams (Fig. 1.2.3), ladder diagrams are contributing to fig.1.2.2
 9. Fig. 1.2.2: left column is of poor quality; what is the rationale to show (3) and (4) in addition to (1b) and (2)?;
 - (8) might be attached to (5) and (6); the phrase "bare NN-interaction" is misleading: I guess, it's the ladder-summed (Breuckner) in-medium interaction what is meant
 10. Caption Fig.(1.2.3): The equations ($Y, 1/\kappa$) deserve a deeper discussion in the text
 11. Fig.1.3.1: the appearance of bold "=" and "+" and Σ distracts the reader from the true content, namely the diagrams.
 12. Eq.(1.3.4) \ddot{O} : a coupling constant might be in place.
 13. Fig.(1.3.2): very busy figure, many new and unexplained symbols and notations, e.g. what is σ , what is meant by the various "Q"s? Someone who is not yet an expert, might get lost. As a rule: Help the potential reader, otherwise people may give up reading the book!
 14. p. 30: The phrase "...is thus gauge invariant." might be controversial in its generality and therefore should be explained in view of that QFT/QED-people have a different understanding of gauge invariance, so do our friends from chiral EFT etc.
 15. Eq.(1.8.4): although the notation $a^\dagger(\vec{r})$ is used frequently, I'd prefer the QFT notation $\psi(\vec{r})$ as used in many other text books of quantum many-body theory - but that might be a matter of personal taste
 16. p.50, First paragraph: it might be mentioned that m_ω is related to the (energy-)slope of the

dispersive self-energy

17. Eq.(1.8.7) and (1.8.8): definition of $R_{v_i}(r)$?

18. A conclusion on Chpt.1: many interesting and important topics are addressed but the rather condensed presentation might bring the non-expert reader to a feeling of "getting lost". Many of the NFT aspects, you are discussing later anyway in due detail, so there is no urgent need to "squeeze" them into the introduction. As I wrote before, it might be more helpful to the reader to spending instead more space on the origin and structure of NN-interactions in the nuclear medium and how they lead to self-binding and other cooperative dynamical effects in nuclei.

- Chpt.2: 1. p.67: the last paragraph, "An essential test..." is hardly understandable, esp. the second sentence seems to be a fragment, the same for ""Coupligns which are.."
2. As a general remark: in many cases the figure captions are quite extensive, containing important material which would better be discussed in the running text.
 3. Fig.(2.4.1): much too busy!! No one will understand the meaning of all the lines, coming without labelling. Is that fig. really needed?
 4. Fig.(2.4.2): the lines are a bit faint.
 5. Sect. 2.7.4: Many of the figures are of bad quality - maybe it's a problem of the proof printing?
 6. Sect.2.9.2 is in danger to "trivialize" the optical potential problem. I'd suggest to refer to the vast literature on that subject, e.g. the books of Satchler, Feshbach, Hodgson and the reviews of Mahaux et al.
 7. p. 134: You should reconsider that busy figure: It is worth at least 5 separate figures and the equations must be discussed in the running text. That figure might work in a talk where you lead by discussion the audience through the displayed material. But it's horrible in printed form, probably mainly due to the reduction from screen to page format.
 8. p.135/136: the numbering looks a bit odd - spend a period to the numbers, i.e. use 1. 2. 3. 9. Fig(2.9.2) -> see remarks 2. and 7.
 10. Fig.(2.9.3), upper part -> see remarks 2. and 7. 11. Fig.(2.9.4) -> see remark 2.
 12. Fig.(2.9.5) -> see remark 2.
 13. Fig.(2.10.1) another very busy figure which would deserve disassembling into a couple of separate figures. I understand the intention to illustrate the interplay of various observables but is that also obvious to a broader readership?
 14. Conclusions on Chpt.2: Overall, it's well done, also the material in the appendices! The connection of microscopic aspects of nuclear many-body dynamics and nuclear phenomenology is elucidated by NFT. Why don't you start the chapter with introducing NFT in the first place? I'd consider such a rearrangement an interesting alternative, putting more weight on "hard" many-body theory.