PRC-Rapid Communication

Revision-v.1

1. Abstract: "describing a wobbling spectrum in a even-odd" -> **in an even-odd**
2. Pagina 1: "This sort of motion is a signature of the triaxial nuclei, these being not much consider across the time." -> nu mi se pare corecta fraza "these being not much consider". S-a incercat de mult timp sa se gaseasca wobblers atat in cazul even-even dar si even-odd, doar ca abia dupa ce au aparut detectoarele de tipul Gammasphere s-a reusit o spectroscopie de mare precizie in cazul reactiilor de fuziune-evaporare. **Consider ca ar trebui scos acest fragment !**
3. Pagina 1: "It was firstly predicted **theoretically** for even-even nuclei**".** Prima observatie experimentala a fost pentru cazul even-odd.
4. Citarea "[2]" lipseste ?. Se trece de la [1] direct la [3,4]
5. Pagina 1: "In a previous paper [19,20]…" spuneti "paper" dar faceti referire la doua lucrari. Fie spunem "**in a previous work**", fie "**In two previous papers**".
6. Pagina 1: "…one wobbling phonon excitation of the TSD2 band, $n_w=1$" -> precizam ca este vorba de TSD3 in paranteza -> "**…one wobbling phonon excitation of the TSD2 band, $n_w=1$, (namely TSD3)**".
7. Pagina 2 (primul paragraph): "..on the base of a semiclssical approach" -> **semi-classical**
8. Pagina 2 (Inainte de ecuatia 4): "TDV" nu ar trebui sa fie "**TDVE**" ? Time-Dependent-Variational-Equation.
9. Ecuatia 8: punct si virgula trebuie pus dupa primele doua ecuatii.
10. Pagina 2 (sub ecuatia 13): "We consider different renormalizations for the sp mean field…" -> **"renormalization for the single-particle mean field…"**
11. Pagina 2 (sub ecuatia 13): "in the signature unfavored as well as in the negative parity states" Nu este precizat inainte despre care anume benzi este vorba! -> "**in the signature unfavored states (those belonging to TSD2) as well as in the negative parity states (belonging to the band TSD4), which result in two distinct energy shifts for the excitation energies in TSD2 and TSD4 bands, respectively."**
12. Pagina 3 (dupa ecuatia 14): Precizam ca invarianta lui H la rotatii cu \pi se datoreaza simetriei D_2: "**On the other hand, due to the $D_$ symmetry of $\mathcal{H}$, the energy function is invariant at changing the angles with π:"**
13. Pagina 3: "Two of these irrep-s have negative parity." -> "**Two of these irreducible representations have negative parity."** (Ar trebui sa evitam prescurtarile fara a fi mentionate inainte intre paranteze). Plus ca intr-un short paper de 4-5 pagini nu isi prea au rostul.
14. Ecuatia 19: lipseste ":" dupa "have the forms"
15. Pagina 3 (paragraful de dupa ecuatia 21): Mai bine spunem asa: "**For a given total angular momentum and a given set of MoIs, one can solve the above equations by expressing two unknowns in terms of the third one, obtaining in this way the classical trajectories of a triaxial rotator with wobbling character."**
16. Pagina 3 (urmatorul paragraph): "Now we proceed" -> "**We now proceed at discussing the numerical results."**

17. "As already mentioned the application is made for ^{163}Lu," -> **"Our calculations based on the formalism sketched above are restricted to the ^{163}Lu wobbler, since this…"** (cuvantul application duce mai mult cu gandul la un algoritm sau cod numeric pentru programare).
18. Pagina 3: "…where the r.m.s. is \approx 240 KeV", ar fi OK sa adaugam si fraza "**To our knowledge, this is the most accurate description of the wobbling spectrum of ^{163}Lu that is based on a semiclassical approach, and moreover taking into consideration the different parity of the TSD4**".
19. Pagina 5: "The contour plots for one representative of each band" -> "**The contour plots for one representative spin state from each band**"
20. Pagina 5: "The system trajectories corresponding" -> "**The system's trajectories…**"
21. Pagina 5 (ultimul paragraph): "163Lu" -> "**^{163}Lu**."

Alte observatii:

1. **ATENTIE: Sunt foarte multe locuri in care dupa punct (".") nu apare un spatiu, fraza devenind ingramadita de sfarsitul enuntului precedent. Trebuie avut grija sa apara spatii dupa fiecare punct.**
2. Pagina 5: "This reflects another phase transition" -> Ar trebui completat cu: "**Although by increasing the energy of a defined spin-state with a significant amount we remark a change in rotational axis, one needs to take into consideration the fact that a phase transition in ^{163}Lu from tilted wobbling around 1-axis to 3-axis is restricted by the very high energy at which such transitions take place. Indeed, for this isotope, the excitation energies associated to each spin state are much lower that the ones predicted for 3-axis wobbling.**"
3. Pagina 5: "There are signals that TSD2 and TSD4 are parity partner bands" -> **"We showed that due to the trial function admitting solutions of negative parity, a description of the fourth wobbling band can be done by the present formalism, taking into consideration parity as a good quantum number"**.
4.