**Corrections – Revised Manuscript V1**

**PRC-FEB-2021**

* ***Pn****=Pagina n (e.g, P3 = pagina 3)*
* **Observatie:** Am vazut ca preferati sa punem in text $TSD\_i$ (i=1,2,3,4), asa ca unde am gasit diferit, am incercat sa mentionez, ca sa pastram consecventa la notatia benzilor.

1. **P1**: Chiar prima fraza: “The wobbling motion was first…” -> **was firstly described…**

2. **P1**: La finalul primului paragraph: apar doua virgule dupa referinte:



3. Tot in acel loc: este un spatiu dupa **i.e.** si virgula. Spatiul trebuie scos.

4. **P1:** In al doilea paragraph: apar in trei locuri numele benzilor astfel: TSD1, TSD2, TSD2. Ele trebuie modificate in **$TSD\_1$** si, respectiv **$TSD\_2$**. Locatiile se pot vedea mai jos:

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5. **P1:** Al treilea paragraph – al doilea rand din coloanal 2: apar spatii in plus dupa “i.e.” si de asemenea lipeste virgula dupa “i.e.”.

6. **P1:** Inainte de ecuatia (2): “the inertial parameters $A\_k$....” -> Noi am notat indicele mai departe cu *i,* deci trebuie schimbat in $A\_i$.

7. **Ecuatia (7):** La numitor: lipseste paranteza de la $j(j+1)$.

8. **P2:** “the ground band head state is an isomeric state with a relative large half-life” -> **relatively large half-life.**

9. **P2:** trebuie puse parantezele la (10) si (11) si. Trebuie un spatiu intre Ref. si [19]. Trebuie adaugat un punct la final:



10. **P2:** Sub ecuatia 13: “…are linear dependent” -> **are linearly dependent**

11. Tabelul 1 si Tabelul 2: Benzile trebuiesc redenumite: TSD1 -> $TSD\_1$ etc.

12. **P3**: “leading to a r.m.s. value of…” -> **leading to an r.m.s. value**

13. **P3**: “where this is $approx 240 keV$.” -> **where the rms is $approx 240$ keV.** Unitatea de masura trebuie scoasa din math-mode $ $.

14. **P3:** “contrary to Ref. [19])” -> **apare o paranteza in plus.**

15. **P3: “**which results in having an I-dependence of both…” -> mentionati “both” dar acolo sunt de fapt enumerate trei termeni. Mai bine -> “**which results in having a I-dependence for $\mathcal{H}$, $\Omega\_1$, and $\Omega\_2$.”**

16. **P3:** Am marcat mai jos niste greseli. Hamiltonianul trebuie scris $H$, valoarea energiei mentionate are litera “o” in loc de cifra 0, si banda patru trebuie notata $TSD\_4$.

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17. **P4:** Deasupra tabelului III: “and negative parity states in the spectrum of H” -> **spectrum of $H$.**

18. **P4: “***Effects of the stable octupole deformation on the rotational motion in nuclei was investigated in Ref.[28].*” -> cateva observatii legat de aceasta propozitie nou adaugata:

a) Mentionam aceasta referinta, dar ar trebui sa si precizam in text ca noi NU avem termeni de tip octupole in Hamiltonianul nostru.

b) Cred ca fraza aceea ar putea fi schimbata in: **“The characteristics of rotational bands in deformed nuclei were also studied using cranking calculations which include the octupole-like deformation in Ref. [28]. However, keep in mind that in the present formalism, there are no octupole terms in the initial Hamiltonian”.**

c) Daca nu este OK fraza de mai sus, atunci macar sa facem referire la faptul ca noi nu luam in considerare deformari octupolare, asa ca analiza facuta in Ref [28] care arata ca apare o noua simetrie (asa numita simplex) nu are un echivalent clar in modelul nostru (eventual acest effect este “ascuns” in shift-ul energetic $e\_{j,2}-e\_j$).

19. **P5**: Banda trebuie notata $TSD\_4$.![Text

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20: **Figurile 1,2,3 -> Notatia benzilor trebuie schimbata cu $TSD\_K$ in loc de TSDK. Notatia trebuie sa fie consecventa cu cea din restul textului:**



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