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Managing Editors
European Physical Journal Special Topics
Special Issue “Particles and Plasmas”

Dear Editors,

Please find our improved contribution to the EPJ Special Issue “Particles and Plasmas,” prepared in order to respond to the kind suggestions made by our referees, for which we are grateful. Our changes (see attached document below) are marked in blue, and any trivial grammatical changes or corrections remain unmarked. This is a summary of relevant changes made:

1. The abstract and conclusions have seen many small changes and improvements, these are marked in blue entirely.
2. As requested by Reviewer #2, Section 1 (*Introduction*) has been given an intro paragraph to clarify context and avoid “in medias res”.
3. Figure 1 has been updated to align with comments in text.
4. The captions of both Table 1 and Figure 1 have been revised as requested by Reviewers #1 and #2.
5. The introduction has been broken into two sections: Section 1 and Section 2 (*Estimation of plasma spin magnetization*). This better connects to the ending of the article as requested by Reviewers #1 and #2.
6. As requested by Reviewers #1 and #2, the mathematical framework presented in Section 3 (*Theory of a spin magnetized gas*) Section 4 (*Magnetized grand partition function*) has been updated. Subsections were retitled as a result.
7. As requested by Reviewer #2, 13 new references have been added to provide more background information and reference key statements.
8. List of minor changes requested by Reviewer #2:
 - (a) All mentions of pico- or nano-scale have been explicitly defined.
 - (b) Natural units have been more carefully introduced.
 - (c) The appearance of the index “i” has been fixed.
 - (d) “CPT” has been changed to “CPT symmetry”.
 - (e) We updated the notation for “s” and “ σ ”.
 - (f) Citations for the hadronization temperature have been included.
 - (g) The acknowledgment credit have been revised.

We look forward to moving to the next step in the publication process.

Yours Sincerely,

Andrew J. Steinmetz & Johann Rafelski