Review of: "Bent Functions and Strongly Regular Graphs"

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Review Report

Article Title: Bent functions and strongly regular graphs.

Authors: Valentino Smaldore

Recommendation to Editor: <u>Resubmit for review, major revisions required</u>.

After going through the paper, the quality of the paper may be graded as follows:

i. **Contribution to existing knowledge** : <u>**Moderately Medium,**</u>
ii. **Organization and readability** : <u>**Medium,**</u>
iii. **Soundness of methodology** : <u>**Up to the mark,**</u>
iv. **Evidence supports conclusion** : <u>**Sufficiently good,**</u>

And

i. **Adequacy of literature review** : <u>**Medium.**</u>

Strengths:

i. The results proved in the paper are methodically correct.
ii. The paper is focused on different aspects of the methodologies of graph theory- Cayley graph, Strongly regular graph, Vectorial bent function etc.

Weaknesses:

i. The paper is not properly supported with an adequate sketch and outline of existing literature in this area,
ii. Motivation of the work has not properly been mentioned here,
iii. Open problems generated from the results proved and the future course of work as a consequence of those results should be neatly sketched before the 'References' section &
iv. No counterexamples are seen here to justify the validity of the results proved. In fact, only one example is provided in the paper. Moreover, examples and/or counterexamples should be supported by preceding remarks. The author should justify whether the conclusions of his results are sharper estimations over the results of others and also whether the conditions employed there are essential or not.

Suggestion(s) to the author:

The author should take into account the weaknesses as mentioned above and revise the paper accordingly.

Therefore, in my opinion, the paper may be accepted in the journal after resubmission implementing proper modifications and incorporation of the comments as made above.

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Suggestion(s) to the author: