

Review report for the authors:

The authors are claiming that the manuscript summarizes their several previous research results on statistical manifolds admitting torsion (SMAT). So, it would considerably contribute to this book since the reader, together at once, can know the state-of-the-art for this concept and the related facts. The followings are the points that at least the reviewer has felt hard to understand or has questions for. He hopes that these comments are useful for the authors to improve the manuscript.

- p.5, l. 5 from the bottom: The meaning of the notation $X_p\phi(\cdot, q)$ does not seem clear at a first look. Why does the authors use \cdot in the parenthesis? Is the notation $X_p\phi(r, q)$, $r(\neq p) \in M$ meaningful? Actually, in p.8, l.14 from the bottom, they write $(\partial_j)_{p_1}\Phi_{KL}(p_1, p_2)$.
- p.6, l. 13 from the bottom: the reviewer does not understand what is “natural”. Does the pre-contrast function defined by (6) coincide with $Z_p\phi^*(\cdot, q)$ of “canonical” ∇^* -divergence ϕ^* ?
- p.7, l.13, For the assumptions of the estimating function, another assumption that $B(\theta)$ is nonsingular seems necessary.
- p.11: In this example, what does the non-flatness of ∇ mean in terms of the estimation problem? Are existence and uniqueness for the solution to the estimating equation guaranteed although corollary 1? The authors should give several comments from statistical points of views.
- p.12, (3): The word “pre-divergence ” is not defined.

Comments to the editor:

Reviewer Recommendation Term: Minor Revision

Overall Reviewer Manuscript Rating: 70

I want to see the authors ' reply and the revised manuscript, if possible.

Thank you for your editorship.