



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	Ms_BJMCS_25210
Title of the Manuscript:	Eta-Einstien S-Manifolds and spectral geometry
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**l a c k o f N o v e l t y**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory RE-VISION comments	Since British Journal of Mathematics & Computer Science publishes in all areas of mathematics and computer science, therefore targeting a broad audiences, articles should reflect those objectives and be written in a clear and concise manner. This is not the case with the present article. Aside of the text-constructing and typos, the scope of the manuscript is not apparent. The abstract does not provide an explicit description what to expect. It just states that "[...] results of Patodi are extended to Eta-Einstien S-Manifolds [...]" where, on the other hand, it seems that the author(s) extend the results of Jeong Hyeong Park [1] from Sasakian manifolds to S-manifolds. Similar, the introduction. Here, the author(s) instead to inform the reader about the rationale behind the work, justifying why his/their work is important, only know results are stated, succeeded but the laconic phrases "In this paper [...]". For example, the last phrase states: "Third section is related to some new results of heat trace symptotics [...]" when in reality, section 3 starting on page 3, generalizes [1] to S-manifolds and it is only after page 5, when the mentioned subject is introduced. The author(s) should rewrite the abstract and introduction according to the journals guidelines. Also provide keywords. Since Sasakian manifolds constitute S-manifolds with $s=1$, I would expect that the author(s) results correspond with the results of Jeong Hyeong Park [1] if s is replaced with 1. This is consistent with the majority of the results except for the quantity $R_{ijkl} \{ f_{ki} f_{jl} - f_{kj} f_{il} + 2 f_{ji} f_{kl} \}$. Whereas in [1] we have (substituting m by $2n+1$) $R_{ijkl} \{ f_{ki} f_{jl} - f_{kj} f_{il} + 2 f_{ji} f_{kl} \} = 6(\tau - 4n^2) \quad (1.1)$ the present paper gives (replacing m by n)	Abstract and Introduction are some changed according to requirements. J. Park has extended the results of patodi for Eta Einstein Sasakian manifolds. In present paper these results are extended to Eta Einstein S-Manifolds, Here results are generalized for both complex and contact manifolds, for values of $s=0$ and $s=1$ respectively.



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	$R_{ijkl} \{ f_{ki} f_{jl} - f_{kj} f_{il} + 2 f_{ji} f_{kl} \} = 6\tau - 12ns + 12n(2n + s - 2)$ $= 6\tau - 12n + 12n(2n - 1) \quad (1.2)$ $= 6(\tau + 4n(n - 1)).$ Further, the latter seems to be independent of s, since the term ns cancels out. Please explain the discrepancy. [1] JeongHyeong Park, Spectral geometry of eta-Einstein Sasakian manifolds. Journal of Geometry and Physics 62 (2012) 2140–2146. Please clarify the Plagiarism: The article resamples the paper of JeongHyeong Park, Spectral geometry of eta-Einstein Sasakian manifolds. Journal of Geometry and Physics 62 (2012) 2140–2146.	Clearly If all terms with containing “s” in any relation are cancelled out, then this result is same for all values of s, means same for complex $s=0$, for contact $s=1$ (Sasakian case). Here results are extension of Pattodi’s paper and analogue to J. Park paper with extension and are cited. I think this is not Plagiarism.
Minor REVISION comments	Citations should be numbered consecutively in order of appearance. Replace Eta with η to be consisted with existing bibliography. On page 5, the authors begin a new topic on heat trace asymptotics. This part should be a separate section. Explain the symbol “;” in τ, first used on page 6 before equation (18). Also, on the same page, equation (23) I think it should be b_1 instead of b_2. On page 7, third line replace “This completes the Theorem 3.2” by “This completes the proof of Theorem 3.2”.	Corrected, Citations are numbered consecutively Replaced Eta with η, with existing bibliography Main Results are under one Section, However in new Paragraph Corrected Corrected



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<u>Optional/General</u> comments	There are plenty of typos throughout the document. For example: It is Einstein not Einstien, Beltrami and not Biltrami, hyperbolic and not hiperbolic and so on. There are also missing symbols, e.g. an equal sign (=) on page 7, and punctuation marks.	All typing mistakes are corrected
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