



SDI Review Form 1.6

|                          |                                             |
|--------------------------|---------------------------------------------|
| Journal Name:            | Asian Journal of Probability and Statistics |
| Manuscript Number:       | Ms_AJPAS_41536                              |
| Title of the Manuscript: | Refinements of Gaussian Tail Inequality     |
| Type of the 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 ‘**lack of Novelty**’, provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

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 REVISION comments | The author started from the very old result (see Feller) to improve inequality (Theorem 1). But we do not know if there is more recent work. Theorem 2 is partly on the internet. I do not have access to all items so I could not verify that.                                                                                                                                                                                                                    | noted                                                                                                                                                                         |
| Minor REVISION comments<br>- | 1-Introduction<br>-elds ???<br>-efcient ???<br>Azais instead of Azis<br>2- Still in the introduction: a phrase surprises me<br>« Therefore, to evaluate the tail probabilities, rare-event simulation serves as an appealing alternative from a computational point of view.”<br>Nothing is done theoretically?<br>3- page 4 : “Which implies, $t^{x2/2} < e^{t2/2}$ ” see again<br>page 5 $5/3(2)^{1/2}=1$<br>Page 7 see again (2.6) a sign error in the integral |                                                                                                                                                                               |
| Optional/General comments    | If we had Lemma 1 before Theorem2, it would have made the task easier. Too bad we have it in the end.                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                               |