



**SDI Review Form 1.6**

**PART 1:**

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| Journal Name:            | <b><u>British Journal of Mathematics &amp; Computer Science</u></b>             |
| Manuscript Number:       | <b>2013_BJMCS_5252</b>                                                          |
| Title of the Manuscript: | <b>Transform of various Random Noises in sequences of proved random numbers</b> |
| Type of the Article      | <b>Research Paper</b>                                                           |

**General guideline for Peer Review process is available in this link:**

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

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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### PART 2: 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>The subject of this paper is interesting; however it is hard to be accepted in current form. The main problems are as follows:</p> <ol style="list-style-type: none"> <li>1. Main goal of the paper is not clear for either a new result or an expanding application;</li> <li>2. Basic assumptions and conditions seem heavily relevant to previous papers [4-13];</li> <li>3. Different symbols are freely used from each source with slight different meaning, such as <math>a   a', m   m', n   n', T   T' \dots y_i   y'_i \dots N   N^* \dots</math> without any indication on their differences ...</li> <li>4. Logic structure of whole construction is not clear, mixed previous results &amp; new proofs ...</li> <li>5. To show the proposed mechanism on randomness characteristics, it is more useful to include a list of various transformed random noise sequences as maps for illustration</li> </ol> | <p>At the end of section 1.1, I write "Now we can also show that the technique used is valid in many other cases than distributions with Lipschitz coefficients not too large: it is the aim of this paper".</p> <p>At the beginning of section 1.4, I add " Then, we shall now see that functions <math>T_q</math> transforms the vast majority of noises in IID sequences."</p> <p>In section 4.1, I write " This method can be applied as soon as</p> <p><math>P</math></p> <p><math>s2Gk</math></p> <p><math>PfY_{-}</math></p> <p><math>n = sjY_{-}</math></p> <p><math>n \otimes s =</math></p> <p><math>y0s</math></p> <p>; <math>s = 1; ::; pg</math> behaves as sums randomly chosen (cf section 5). It will be shown below that it is generally the case for the vast majority of models. To prove this, we need a measure on all models <math>Y_{-}</math> <math>n</math> which takes account of this fact. "</p> <p>At the end of section 1.4, I add As a matter of fact, we understand in this paper that functions <math>T_q</math> transforms noises which are not too deterministic in IID sequences.</p> |



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|  |  | <p>At the end of section 4.4, I add<br/> " Then, theorem 2 show that, for the vast majority of models <math>Y_n</math> of a sequence <math>y_n</math>, <math>n=1, \dots, N</math>, <math>T_q(Y_n)</math> is <math>_q</math>-equivalent to the IID model, i.e. <math>T_q(y_n)</math> admits the IID models for correct model if <math>m</math> and <math>q</math> are well chosen. As a matter of fact we shall see below that it is the case for the models <math>Y_n</math> which are not too deterministic."<br/> In section 6.4, I write " In conclusion, the measure defined in notations 4.5 adapts well to the results obtained and it is quite selected."<br/> At the end of section 9, I add "As a matter of fact it is enough that <math>y_n</math> is a noise not too deterministic. For example, one can choose the following noises<br/> 1) Texts or transformed texts (cf Blacher (2011))<br/> 2) Files systems of the computers<br/> 3) Music (e.g. Rap music as Marsaglia (1995))<br/> 4) Elapsed time between emission of particles during radioactive decay<br/> 5) Thermal noise from a semiconductor</p> |
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|                                         |                                                                                                                | diode or resistor<br>6) The frequency instability of a free running oscillator<br>7) Quantum phenomena |
| <b><u>Minor</u></b> REVISION comments   |                                                                                                                |                                                                                                        |
| <b><u>Optional/General</u></b> comments | It is necessary for author to identify the main target and also description strategy to reorganize this paper. | I agree with comments of reviewer.                                                                     |