



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	2013_BJMCS_3736
Title of the Manuscript:	A New Class of Odd-point Ternary Non-Stationary Schemes

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 9 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 <i>(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)</i>
<u>Compulsory</u> REVISION comments	Subdivision schemes are certainly an interesting and active subject of research since the last two decades. Nowadays, in the literature of univariate schemes, there is abundance of both stationary and non-stationary schemes (though essentially binary). Therefore, The usefulness of a new proposal is evident only in special situations. For example in case they are based on a original construction opening new perspectives in the field of subdivision. Apparently, the submitted manuscript is not in that track even though the aim of the work is not in evidence but somehow hidden in the description of the organization of the paper (page 2). With the above observations in mind my proposal is that the authors write a new version of the paper where they better stress the novelty of their subdivision construction (if any) together with the advantage and disadvantages of their schemes with respect to the existing literature. With this respect I also would like to remark that reference to previous work is far from being complete. For example, construction of non stationary interpolatory schemes is presented in [C. Conti, L. Gemignani, L. Romani, From approximating to interpolatory non-stationary subdivision schemes with the same generation properties, Advances in Computational Mathematics, Volume 35, Numbers 2-4, (2011), 217-241] for the binary situation and extended to [C. Conti, L. Gemignani, L. Romani, Solving Bezout-like polynomial equations for the design of interpolatory subdivision schemes, ISSAC '10 Proceedings of the 2010 International Symposium on Symbolic and Algebraic Computation, 251-256,	



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	(2010)doi:10.1145/1837934.1837983] for the m-ary case. Also, the reproduction capability of non stationary subdivision schemes (i.e. their capability to reproduce specific class of functions) is investigated in [C. Conti, L. Romani, Algebraic conditions on non-stationary subdivision symbols for exponential polynomial reproduction, Journal of Computational and Applied Mathematics 236, (2011), 543--556] and [M.Charina, C. Conti, L. Romani, Reproduction of Exponential Polynomials by Multivariate Non-stationary Subdivision Schemes with a General Dilation Matrix, arXiv:1303.1678]. I strongly recommend the authors to include these papers in the reference lists. An other important issue is that authors should better describe the construction of the subdivision scheme given in section 3 the description being actually missing. Even if I did not complete the check of the mathematic details, for future work below I am listing some problems encountered while reading the paper for the first time: -sequences are defined in different ways (see, for example, the difference in the notation between page 1 and page 2). Please make a decision about the notation from the beginning -at page 3/4 the authors recall D.D. idea for constructing interpolatory schemes but in (2.1) and (2.2) the definition of x_j is missing (on the contrary is appearing in (2.3) and (2.4) where no x_j is appearing!!!!). Also, what about the difference between t and x_j? - as already mentioned, a crucial problem is in section 3 where the authors present their own construction without any word of comment what is the interpolatory scheme they are using? what is the relation of that construction with the D.D. construction?	
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<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

Note: Anonymous Reviewer