

Reviewer #2

Comment

The GBTF or RI algorithm is known to have good overall performance, but it is difficult to understand that artifacts appear in the experimental image. It is recommended to apply the ARI (Adaptive Residual Interpolation) algorithm, which is open source and is known to have the best performance.

Response:

Dear Reviewer,

Thank you for indicating the ARI method. Based on your suggestion, we implemented this method and added it to the list of the tested algorithms. The results are acceptable; there are minimal artefacts compared to simple RI methods, and overall performance is good. Nevertheless, we are achieving better correlation results using the APN, so this is the method we conclude to find as optimum for the samples studied herein. The following text has been added to the manuscript Section 2.2: Demosaicing methods :

..... Among the well documented representatives of G3 are Adaptive Homogeneity Interpolation (AHD) and Adaptive Residual Interpolation (ARI). AHD uses three different techniques to minimize the colour artifacts [28]. The filter bank technique allows minimizing aliasing. The adaptive selection of interpolation direction for misguidance colour artifacts is used. The solution for interpolation artifacts is combining two separate interpolations (vertical and horizontal) based on a homogeneity matrix. ARI adaptively combines two residual interpolation based algorithms and adjust the iteration number at each pixel [29].....

In addition, the Table 1 and figures 3 and 5 have been modified by adding the results obtained for the ARI method.

All changes are highlighted in the manuscript.