This manuscript aims to present a new glint correction algorithm for estimating the radiances from the glint affected pixels at any wavebands. Satellite data is used to develop this method, which is a very essential to compute more accurate water leaving radiance for ocean color application. Current method is implemented on MODISA images, to estimate more accurate water leaving radiance. The authors have also compared a new algorithm results with standard algorithm results. Statistical analysis of both the algorithms is presented to support the performance of presented algorithms. Validation exercise performed with NOMAD in situ data. The New glint correction algorithm further applied to MODISA images. This is an encouraging experiment.

General comments:

1. The manuscript is well written but I would suggest authors to greatly improve the first paragraph of the introduction.
2. The authors state that the NGC algorithm is novel due to dependent on the satellite data. We know that standard glint correction algorithm is being widely used and its performance tested in global oceans. How do authors justify the applicability the NGC algorithm in the global oceans? Novelty of the NGC algorithms should be discussed.
3. As it is clear from several studies that curve fitting method uses the linear and non-linear function to fit on data to obtain empirical relationships. In this paper, mathematical formulation of the algorithm is not clear for me. What type of fitting is performed to obtain the empirical algorithm?
4. The authors have used term “optically complex” throughout the manuscript. Please explain the meaning of this term.
5. I would recommend for showing all the satellite images with proper Lat/Long figure format instead of simply showing the region without any Lat/Long information. Moreover, color bar should cover wider range.
6. This research will require additional validation and test based on more high quality in situ and satellite data, and refining the algorithm coefficients, in order to provide more accurate water leaving radiances.

Finally, fully recognizing the importance of the objective, the manuscript can be published with some major and minor revisions.

Here is a list of major and minor points the authors should address these comments in the revised manuscript.

Major comments: The authors have implemented NGC algorithm only over Arabian Sea. I think apart from Arabian Sea, this algorithm should be tested in some other glint affected region for showing the novelty of NGC.

Page 2799-2800, Equations (3) and (4): The determination of glint ratio (g_r), is an "empirical formula" providing glint ratio as a function of the $L_{rc}(547)/L_{rc}(667)$ ratio through **some mathematical** equations whose parameters are determined by fitting satellite data. This means that the proposed "glint ratio" simply relies on empirical relationships between $L_{rc}(2130)$ and values of g_r. It is not clear from equation (3), how does **2/3** constant is introduced in equation (3).

Page 2819-2820: Figure 2 (c). Scatter plots showing the relationship between L_{rc} (2130 nm) and L_{rc} (667 nm). Slope and intercept values are very low, which is not reasonable. What could be the possible reason for your low values of slope and intercept? In case of best curve fitting slope value usually close to **one**, provides a very tight relationship on fitted data, but in Figure 3. (a and b) slope is very high, which is impractical. Thus, the authors should check these fittings very carefully.

Minor comments:

Page 2805, lines 19-20: 748 nm is the red band? Please check it.

Page 2807, line 8: How do you define relatively clear waters? Please provide your criteria for relatively clear waters and relatively bloom waters.

Page 2816: In equation (8) TL_{gi} should replace with TLg.

Page 2816: The values presented in the table 1 are different from original values reported by Pope and Fry (1997). Please justify it.

Page 2828: Please mention number of data points in Figure 11(a, b, and g). Yellow color is not clear in Fig 11(g), please use some other color to present your plot.