

Interactive comment on “A global viral oceanography database (gVOD)” by Le Xie et al.

Anonymous Referee #1

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The authors of the manuscript construct the first global viral oceanography database containing viral abundance (VA) and viral production (VP) data with host and environmental parameters which are collected from published papers. Based on the database, the authors estimate the total viral number and biomass in the global ocean, and compare the technological bias of different methods of data generation. This database can be valuable for field and modeling studies in marine ecology, biogeochemistry and other areas of oceanography. This manuscript needs to be improved before acceptance for publication.

Specific Comments: 1) Line 175-180: “VA counted by the three methods distribute in similar ranges and do not show systematic difference”. In the database, each data point is only used one of three methods to obtain the viral population data. So, how do the authors compare the difference of three methods? Are there some samples which use two of the three methods? 2) Line 196-206: It is same as above. Five methods

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are used to generate the VP data. But no sample is used more than two of the five methods. The authors should describe how they compare the differences of these methods. 3) In Figure 2, it may be better that the figure of each fraction is shown.

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C2