1. It was mentioned in the abstract that the effect of the roll angle on data transmission is crucial. However, the paper discusses only the roll motion of PDCB. The maximum roll angle to effectively data transmission has yet to be discussed.
2. The sentence on page 2, line 54 to 55 need to be re-formulated because the meaning is unclear.
3. The right-hand side of equation 2.2.1 should be a function of time.
4. Detail explanation including the mathematical derivative to obtain the equation 2.2.28 should be included in the manuscript.
5. Figure 4 shows that the PDCB has an initial roll angle. Therefore, the roll angle is always positive. The factors that induce the initial roll angle should be explained in the manuscript.
6. The righting arm as a function of roll angle can be theoretically calculated. This is important to verify the assumption formula obtained in equation 2.2.18.
7. On page 8, lines 268 – 271. Those conclusions should be supported by data obtained from numerical calculation and analysis. There are no calculation results for the damping moment given in the manuscript. The drag force induced by the wave acting on the PDCB as wave force is different from the damping moment, which depends on the body characteristics. The damping moment as a function of angular velocity and roll angle should be included in the manuscript.
8. The assumption used in the paper is not consistent. Some parts use the assumption of small roll amplitude with the linear damping moment. However, in the other parts, the damping and the restoring moment are assumed to be nonlinear.
9. On page 8, line 277 mentions that the natural roll period of PDCB is 5 seconds. How to obtain this period.
10. Figure 5 shows the dimension of the model but the draught was not mentioned. The draught is important to investigate the model's equilibrium before conducting the simulation.
11. On page 9, lines 294 – 300 concluded that the maximum roll angle was 23 degrees. A longer simulation duration is necessary because the roll amplitude increases with time. The curve shows an irregular motion rather than a regular roll motion. In cases of simulation conduction in regular waves, the comparison cannot be performed by using the average.
12. To compare the results of the three methods, Figure 10 should be written in the same phase angle. Otherwise, it is very difficult to make the comparison.