

In the following we use R2C1 (etc) to refer to comment 1 (C1) by reviewer 2 (R2).

**Dr. S. Patidar**

R2C9: Dear Author

Thanks for your reply. I appreciate your response and initiatives to improve the overall quality of the paper. You responded well to most of the comments. For Eq A24 In numerator within two summation sign I think you should have  $((\bar{u}_a(l) - \bar{P}(t)) - (\bar{u}_a(l) - \bar{P}(t)) - 0)$  instead of  $((\bar{u}_a(l) - \bar{P}(t)) - (\bar{u}_a(l) - \bar{P}(t)) - 0)$  to allow cancellation of term  $\bar{P}(t)$ . Please note that I did not included bars here due to the format of text allowed. Please clarify if I am misunderstanding you and please feel free to contact me or leave a comment if you need further clarification on any of my comments. I looking forward to reading the updated manuscript.

Response: Eq. A24 as submitted (cut and paste from the .pdf) is,

$$\begin{aligned} \text{cov}(P_a(t), P_m(t)) &= \frac{\sum_{l=1}^q \sum_{k=1}^p \left( (u_a(l) - \bar{P}(t)) - (\bar{u}_a(l) - \bar{P}(t)) - 0 \right) (u_m(k) - \bar{u}_m(k))}{q \times p - 1} \\ &= \frac{\sum_{l=1}^q \sum_{k=1}^p \left( (u_a(l) - \bar{u}_a(l)) \right) (u_m(k) - \bar{u}_m(k))}{q \times p - 1} \end{aligned} \quad (\text{A24})$$

We are not sure but we think you are referring to the third and fourth terms inside the first bracket. The  $\bar{P}(t)$  will cancel since  $\bar{P}(t)$  equals  $\bar{P}(t)$ . Maybe the best way to avoid confusion is to add brackets around the third and fourth terms like,

$$\begin{aligned} \text{cov}(P_a(t), P_m(t)) &= \frac{\sum_{l=1}^q \sum_{k=1}^p \left( (u_a(l) - \bar{P}(t)) - \left( (u_a(l) - \bar{P}(t)) - 0 \right) \right) (u_m(k) - \bar{u}_m(k))}{q \times p - 1} \\ &= \frac{\sum_{l=1}^q \sum_{k=1}^p \left( (u_a(l) - \bar{u}_a(l)) \right) (u_m(k) - \bar{u}_m(k))}{q \times p - 1} \end{aligned} \quad (\text{A24})$$

Let us know what you think.