

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  $((U_a(I)-P(t) - (U_a(I)-P(t)) - 0)$  instead of  $((U_a(I)-P(t) - (U_a(I)-P(t)) - 0)$  to allow cancellation of term  $P(t)$ . 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,

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

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

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

Let us know what you think.