1. **Major considerations**: The choice of metrics is my main concern. Restricting the analysis to bifurcation angle and downstream channel width/order feels too narrow. Other metrics such as lateral channel mobility or avulsion frequency would provide a richer basis for comparison and may lead to more meaningful separation. When a fan or delta terminates in standing water, downstream boundary effects become critical, and prior work (e.g., Carlson et al., 2018; Wang et al., 2019) shows that boundary conditions strongly influence channel number, lateral migration rate, and sediment bypass. These findings should inform the interpretation here. Even if channel depth cannot be measured from imagery, alternatives such as migration rates or wetted frequency maps (e.g., Piliouras et al., 2017) could help test whether channel dynamics differ between deltas and fluvial fans. This would require using data from more than a single snapshot in time. The authors are working on scales where existing channel metric tools could be applied, and doing so would provide a clearer picture of system dynamics across time and discharge conditions. In general, the paper would be stronger if the classification were less prescriptive. Rather than setting a framework in advance, I would like to see populations emerge from the data, and then understand when a fluvial fan behaves like a delta and when it does not. That approach would make for a more compelling contribution.

We thank the reviewer for the suggestion to incorporate additional metrics such as lateral mobility, avulsion frequency, or wetted frequency. We agree that these parameters as defined in Carlson et al., (2018) and Wang et al., (2019) would provide valuable insight into delta dynamics; however, they can require either multi-temporal or bathymetric datasets and, nor are they easily mappable morphometric criteria that can be applied to both delta and fluvial fan channel networks – especially since many fluvial fans terminate in terrestrial environment. Our intent is to focus on branching angles and downstream channel width/length because these metrics can be consistently extracted from single high-resolution images and compared across a wide range of environments (both terrestrial and marine).

Minor considerations

2. The selection of case studies is unclear. How is the threshold for fluvially dominated deltas quantified?

We understand some of the ambiguity in defining our definitions from wave- and tide-influences and dominated deltas. We have addressed your comments by clarifying our classifications in section 3.4 to more accurately specify our methodology for distinguishing wave- and tide- “dominated” and “influenced” deltas. Wave-dominated deltas are characterized by strandplanes and a complete absence of bifurcations, whereas wave-influenced deltas retain features such as strandplains but exhibit clear, measurable channel bifurcations. Similarly, tide-dominated deltas have a limited number of channels that widen substantially seaward, unlike tide-influenced deltas show channel widening only in the most distal channels. We have also now included references to our Supplementary Data which contains the assigned delta classification as well.

3. Should confinement be considered as a control?

We did not consider confinement because confinement is often difficult to quantify consistently across global datasets. Shaw et al., (2025) attempt to quantify confinement in their study of deltas, however some of confinement angles are inconsistent with observed topographic data. Moreover, we wanted to restrict our metrics to existing morphometric controls such bifurcation angle (Coffey and Shaw, 2017) and channel length and width trends (Edmonds and Slingerland, 2007; Jerolmack, 2009). Future targeted studies on the controls of confinement on channel network development would be interesting; for instance existing fluvial fan models (e.g. Harrison and Edmonds, 2023) typically consider no confinement.

4. Figure 2 needs clearer labeling (e.g., upstream/downstream).

We intended for our mapping symbology using a combination of color palette and decreasing line thickness to indicate downfan morphology, however we recognize that there may by some confusion for downstream directions especially for terrestrial fans. We have included white arrows in the figure that point from the fan apex to the downfan direction.

5. Several figures would benefit from improved color schemes and alternative presentation. Scatter plots, for example, could more clearly show whether two populations emerge.

For the channel ordering figures, we selected a ROYGBIV color scheme with bold, high-contrast colors to maximize clarity and accessibility, particularly for color-blind readers. While other studies mapping delta channel networks (e.g., Dong et al., 2016; 2020) have used alternative color schemes, we found those less interpretable under accessibility considerations. In addition to color, we emphasized channel hierarchy by scaling line thickness: lower-order channels (order 1) are drawn thickest, while higher-order, distal channels are progressively thinner. We believe this dual coding (color and thickness) improves interpretability and reduces reliance on color perception alone. We are definitely open for making scatter plots and specific suggestions here would be appreciated.

6. The GitHub link provided does not work.

We have reviewed the GitHub link, and it does work.