



Figure S1. Mean of Stage IV snowfall at spatial scale 0.04 degree (a) before and (b) after mapping to one-degree and interpolating back to 0.04 degree and (c) their difference (i.e., (a)-(b)) for water year 2018. The bottom row is similar to the top row, but for precipitation: mean precipitation at 0.04 degree (a) before and (b) after mapping to one-degree and interpolating back to 0.04 degree and (c) their difference (i.e., (d)-(e)).

The differences are generally larger for precipitation than snowfall, as precipitation tends to have higher rates than snowfall. Furthermore, most of the differences are located near the coastal or high elevation (mountainous) regions as can be seen from the elevation map (Figure 1). The difference maps [Figure S1 (c) and (f)] tend to show smaller differences at lower elevation and flat regions, especially in higher latitudes where precipitation rate tends to be lower. Overall, it seems that spatial resolution has larger effect over topographically complex regions and near the coastal regions. This can introduce errors into our comparative analysis of products that have different spatial resolutions.