



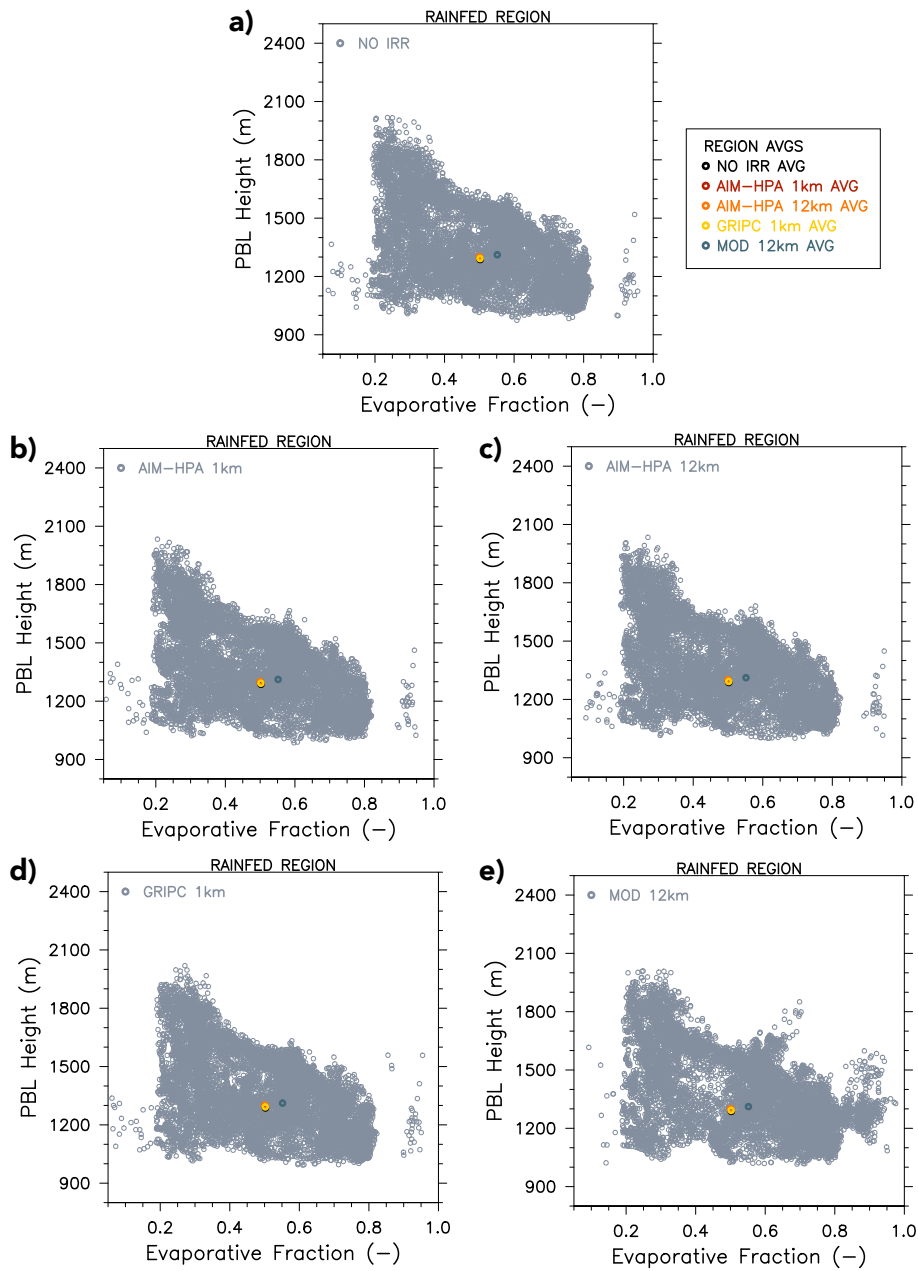
Supplement of

Investigating the response of land–atmosphere interactions and feedbacks to spatial representation of irrigation in a coupled modeling framework

Patricia Lawston-Parker et al.

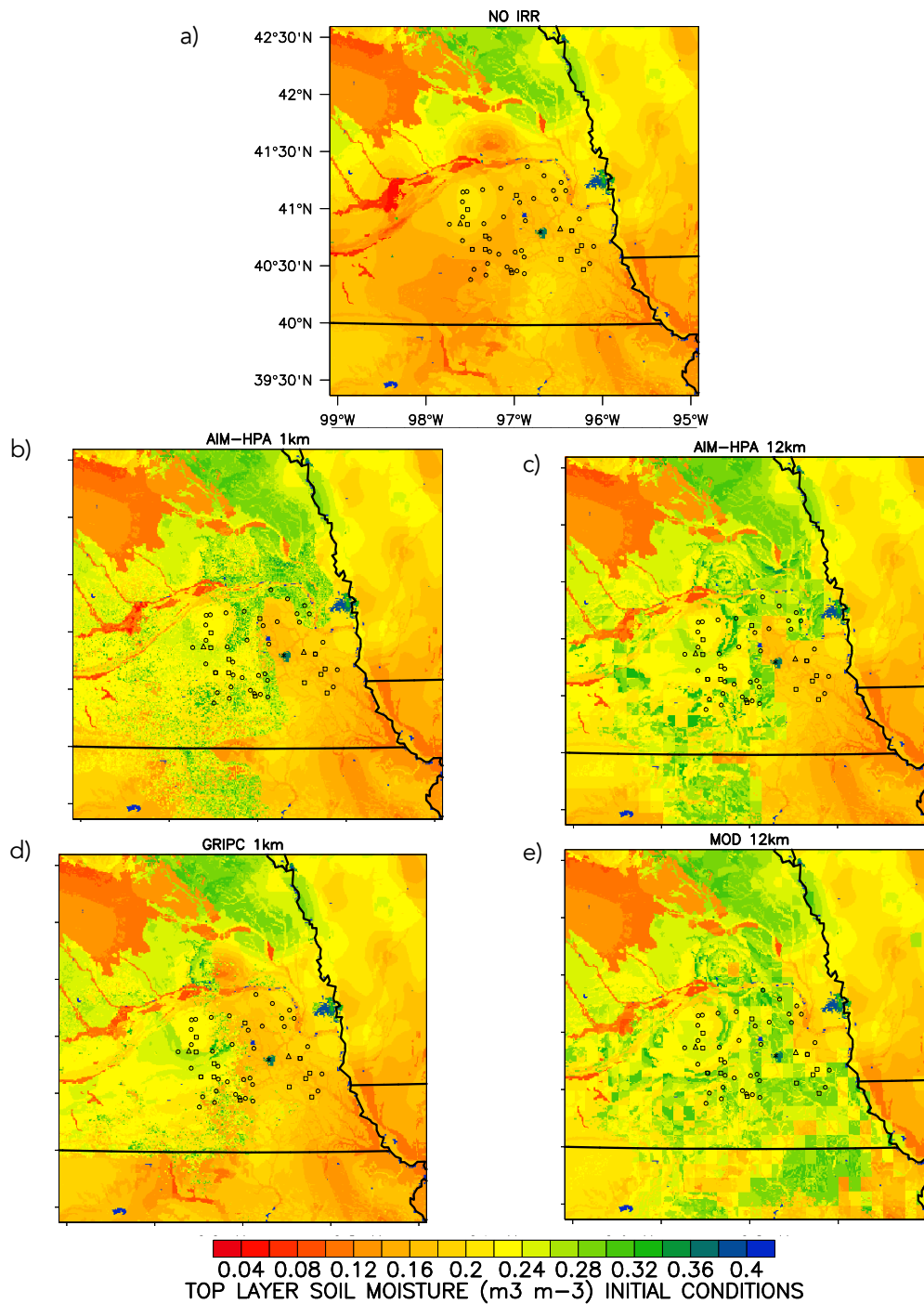
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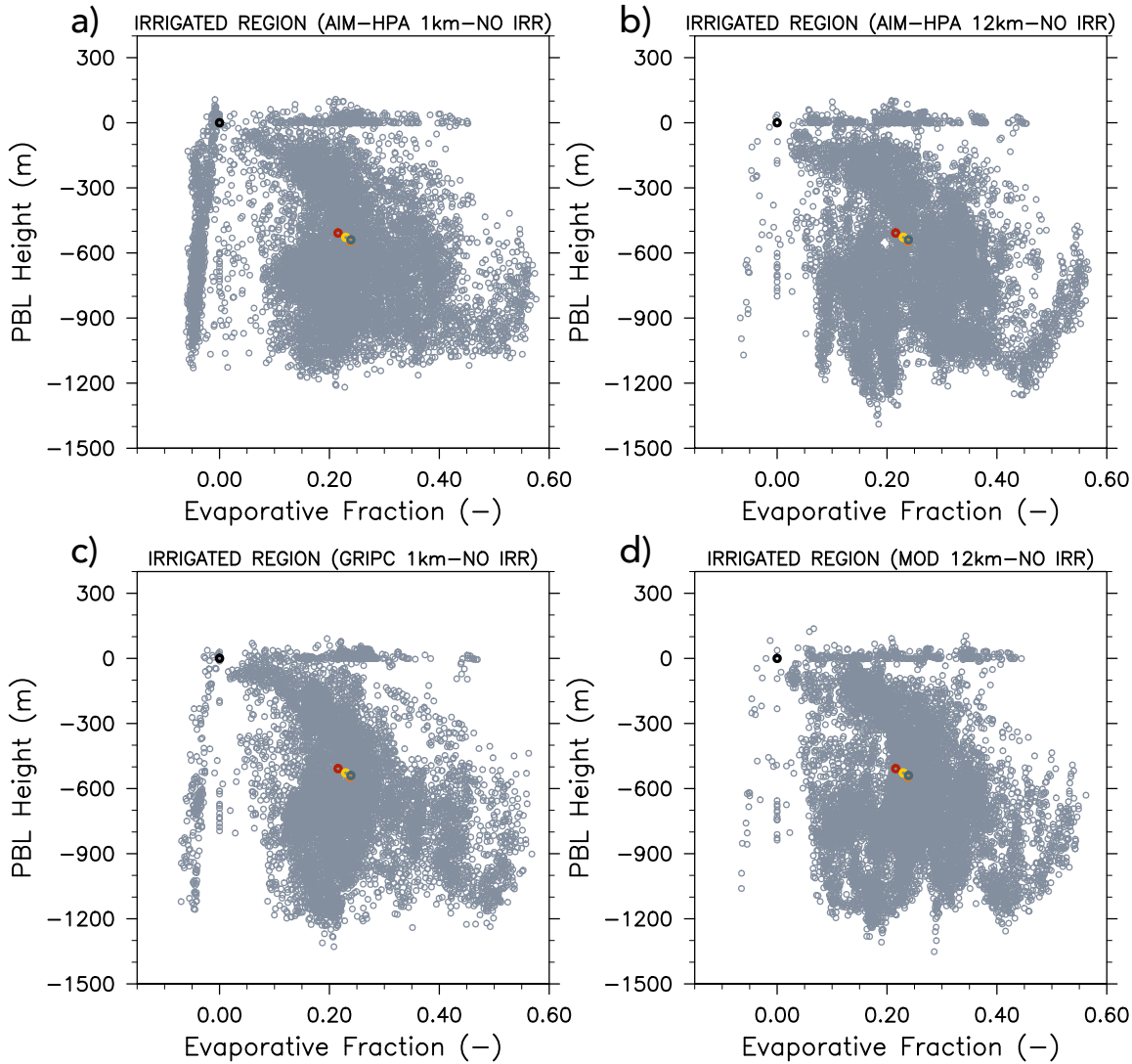
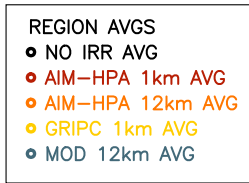


Supplemental Figure 1. Evaporative Fraction vs. PBL Height plots for the Rainfed subregion for the a) NO IRR, b) AIM-HPA 1km, c) AIM-HPA 12km, d) GRIPC 1km, e) MOD 12 km runs. There is one gray marker for each 1km gridcell within the 100 x 100km irrigated subregion. The colored markers represent the subregional average in each run and therefore are the same for each subplot.

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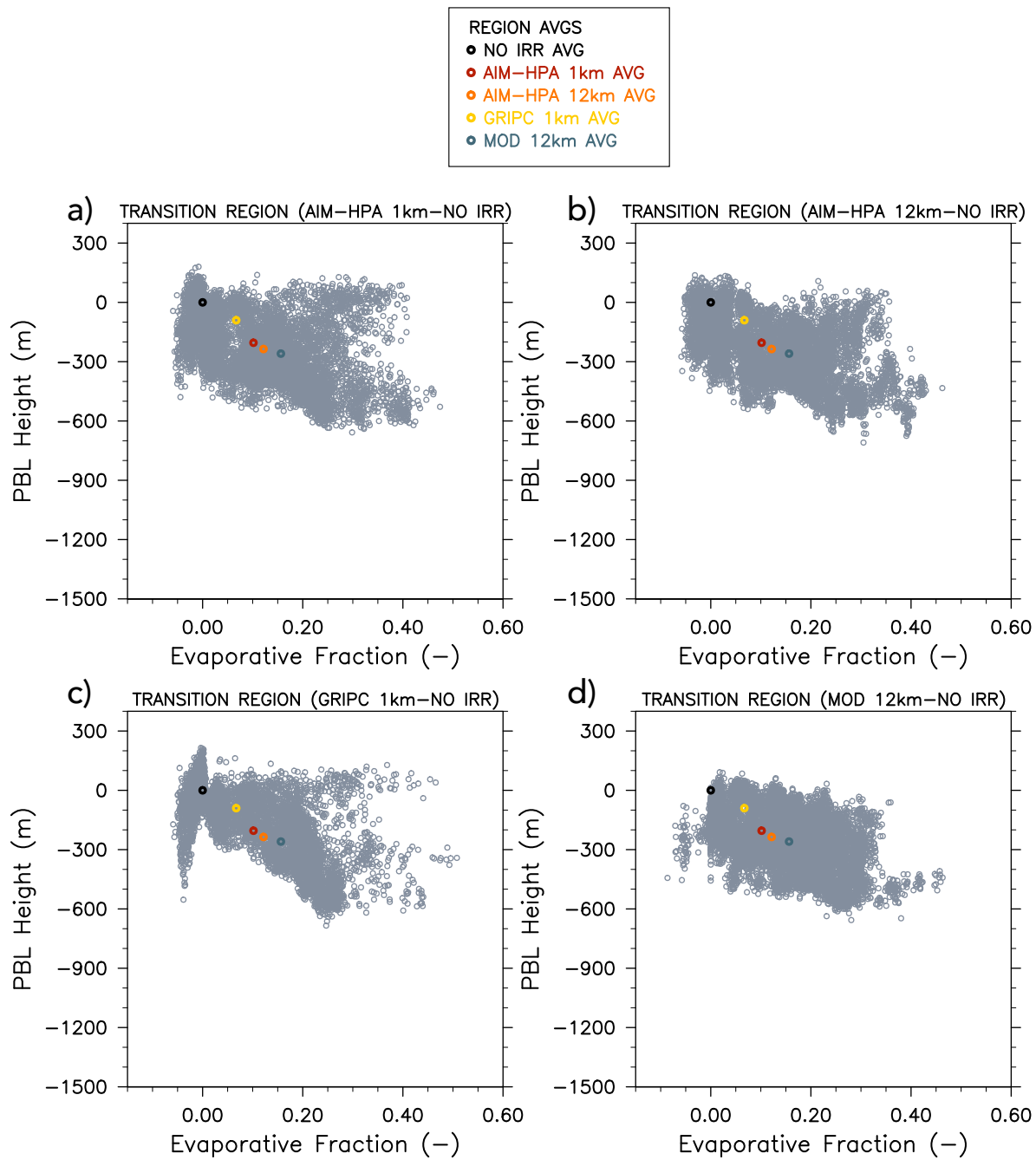
Supplemental Figure 2. Initial top layer soil moisture in the a) NO IRR, b) AIM-HPA 1km, c) AIM-HPA 12km, d) GRIPC 1 km, and e) MOD 12km runs.



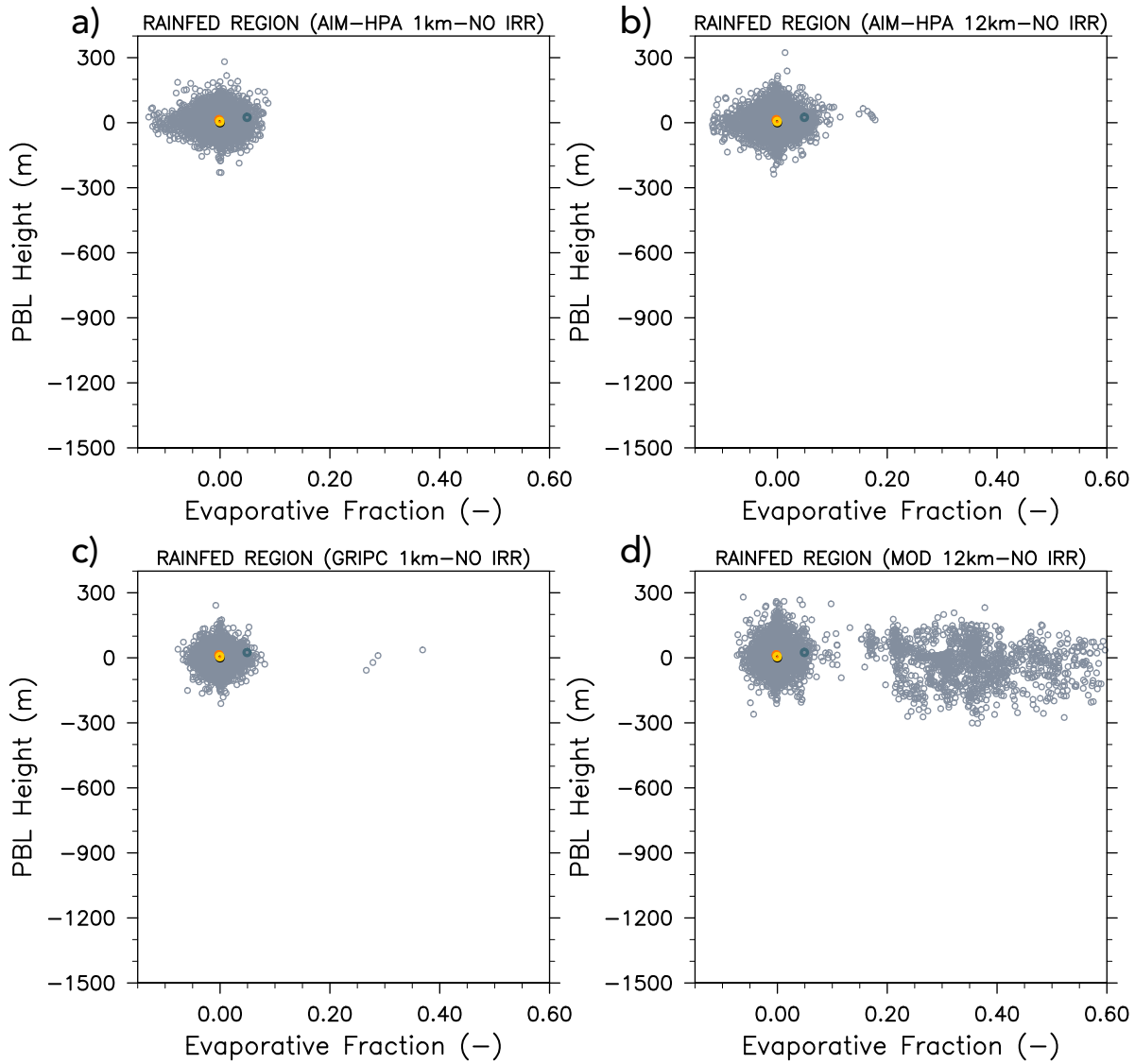
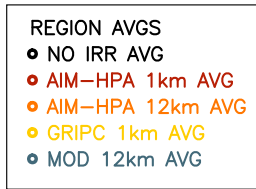
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Supplemental Figure 3. Difference in Evaporative Fraction vs. Difference in PBL Height plots for the Irrigated subregion for the a) NO IRR, b) AIM-HPA 1km, c) AIM-HPA 12km, d) GRIPC 1km, e) MOD 12 km runs. There is one gray marker for each 1km gridcell within the 100 x 100km irrigated subregion. The colored markers represent the subregional average in each run and therefore are the same for each subplot.

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Supplemental Figure 4. As in Figure 3, but for the Transition region.



20 **Supplemental Figure 5.** As in Figure 3, but for the Rainfed region.