

Amazon River Discharge and Its Relationship with Precipitation from TRMM measurements

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National Aeronautics and
Space Administration

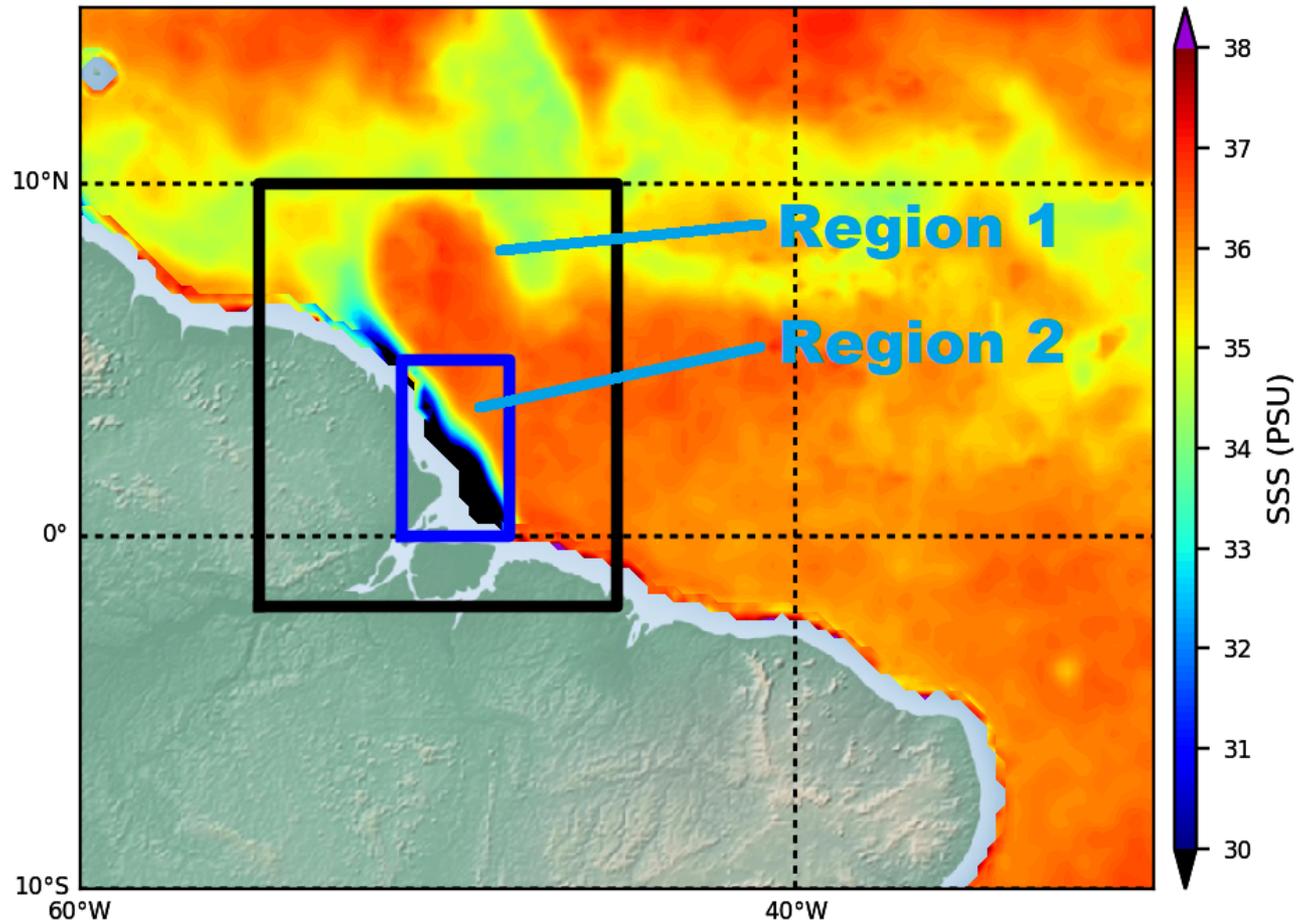
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Atlantic Regions

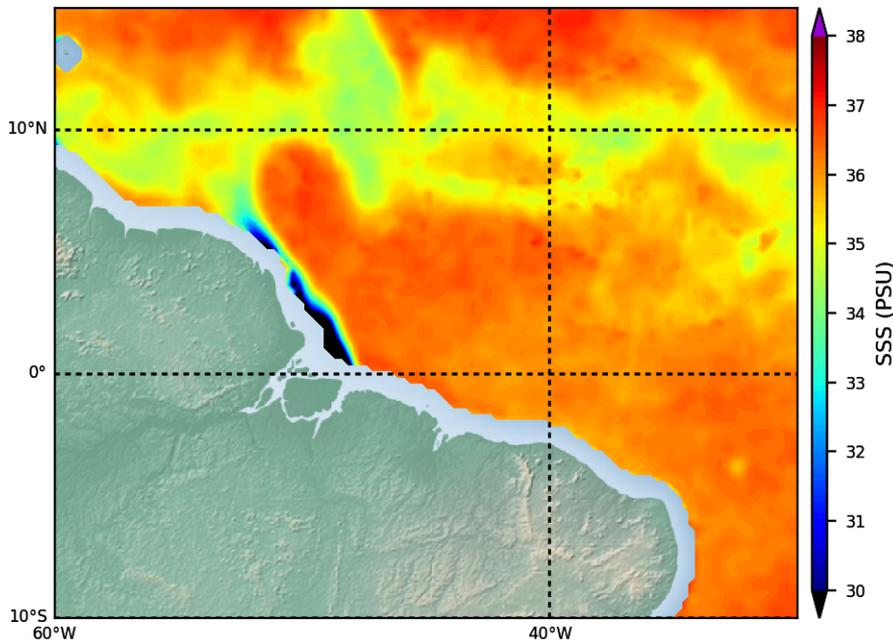
2017-10-27 (RSS SMAP 70km 8Day)



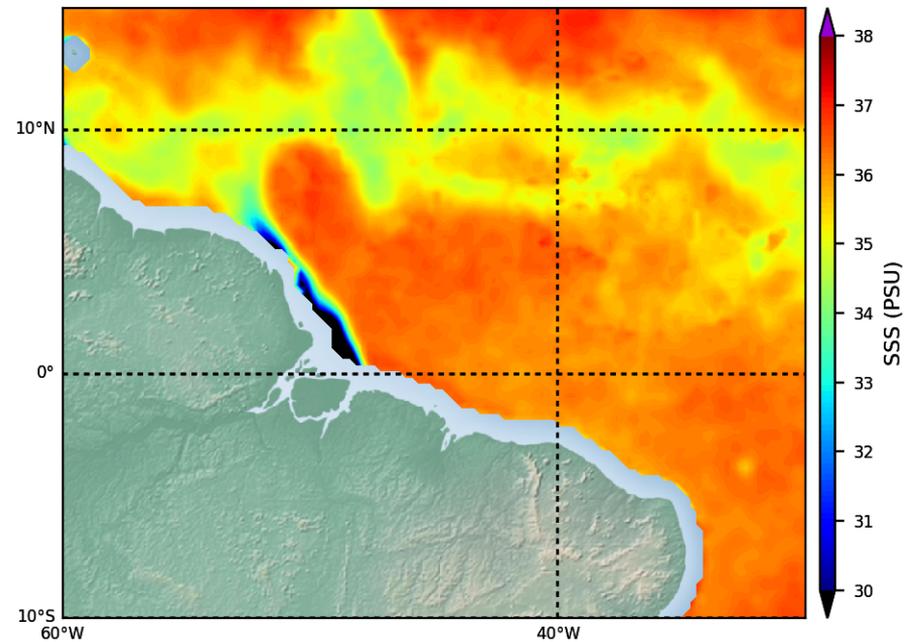
**Atlantic regions
we concentrate
on for the SSS
calculation**

RSS SMAP 40km (left) and 70 km (right) Comparisons

2017-10-27 (RSS SMAP 40km 8Day)

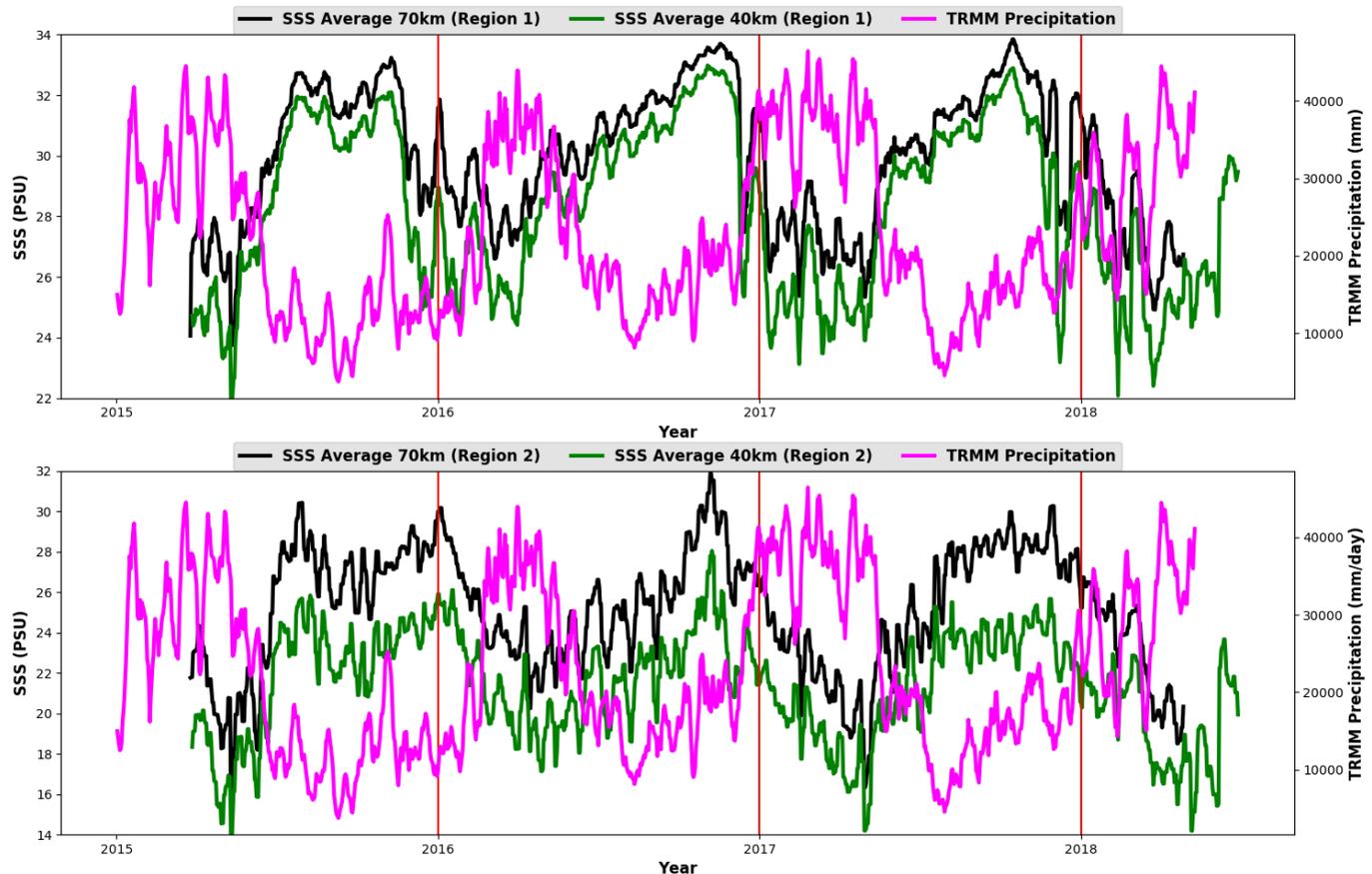


2017-10-27 (RSS SMAP 70km 8Day)



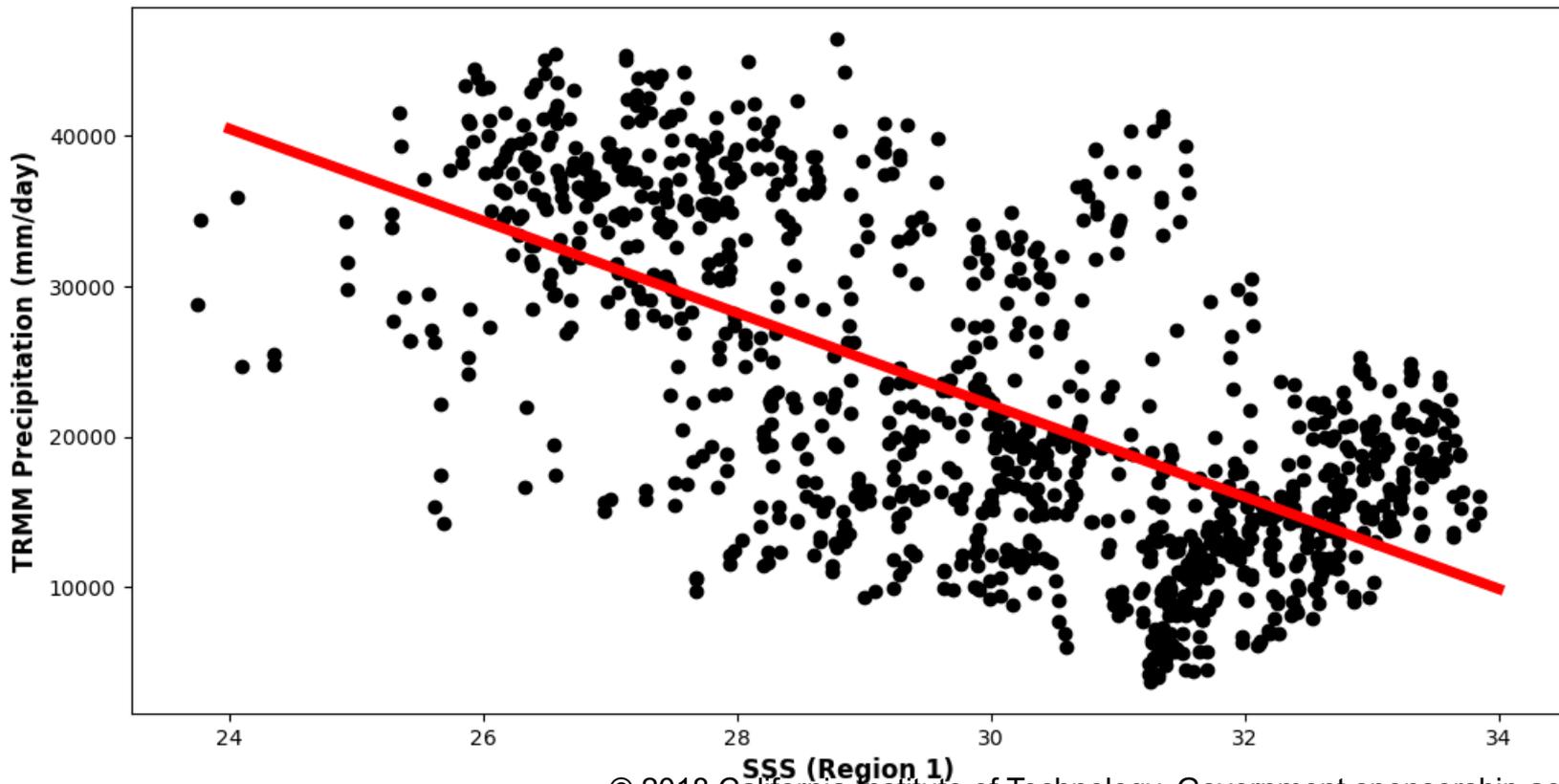
SSS and Precipitation Comparisons

- **Blue line shows the daily total Precipitation from TRMM measurement**
- **Top panel shows the SSS in region 1 and precipitation**
- **Bottom panel shows the SSS in region 2 and precipitation**

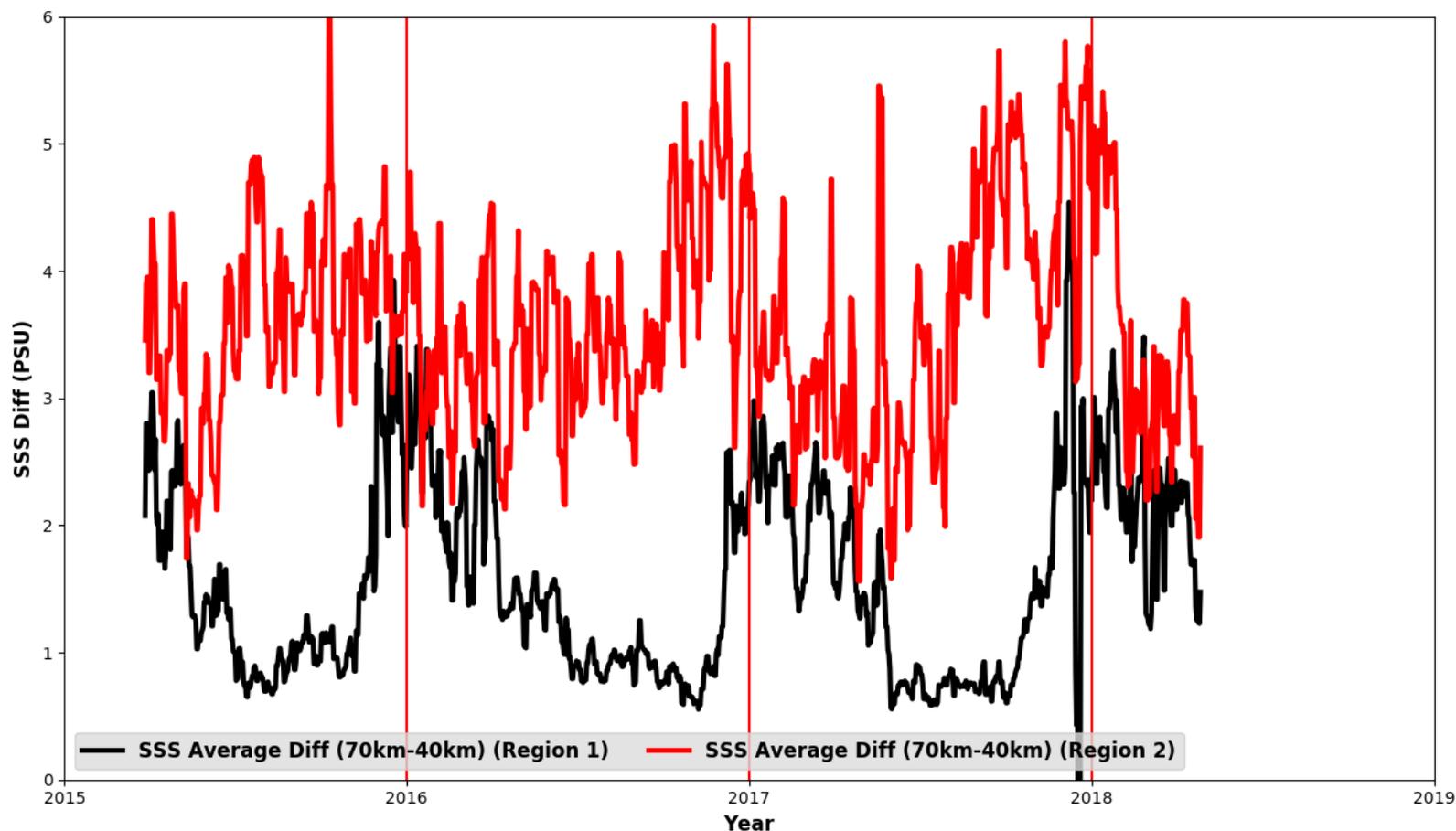


SSS and Precipitation Correlation

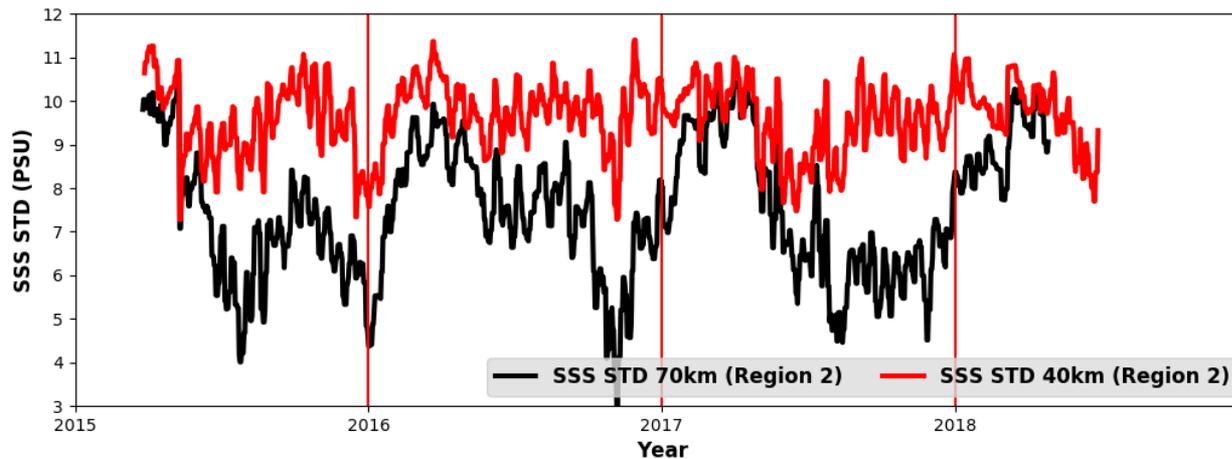
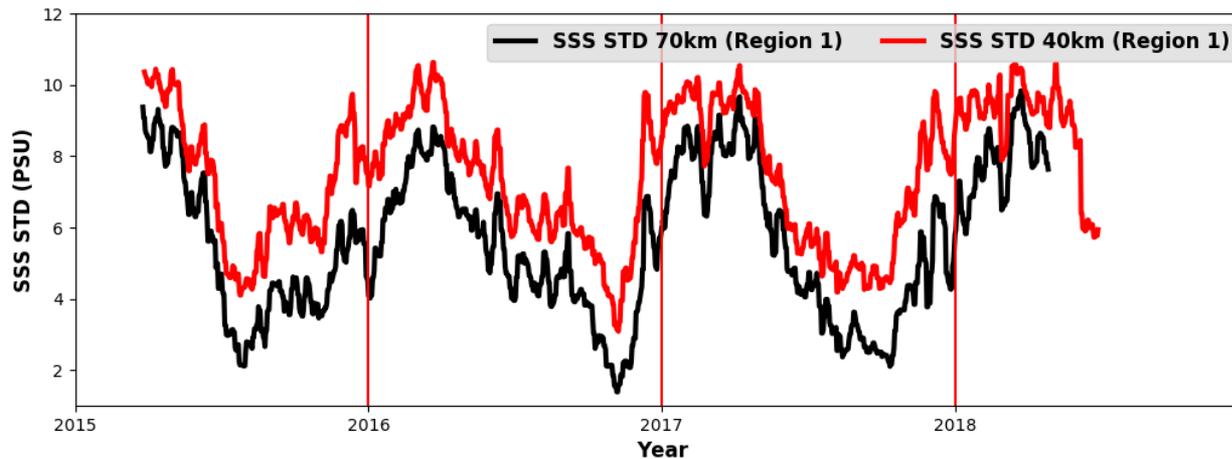
Region 1: Correlation Coeff -0.65



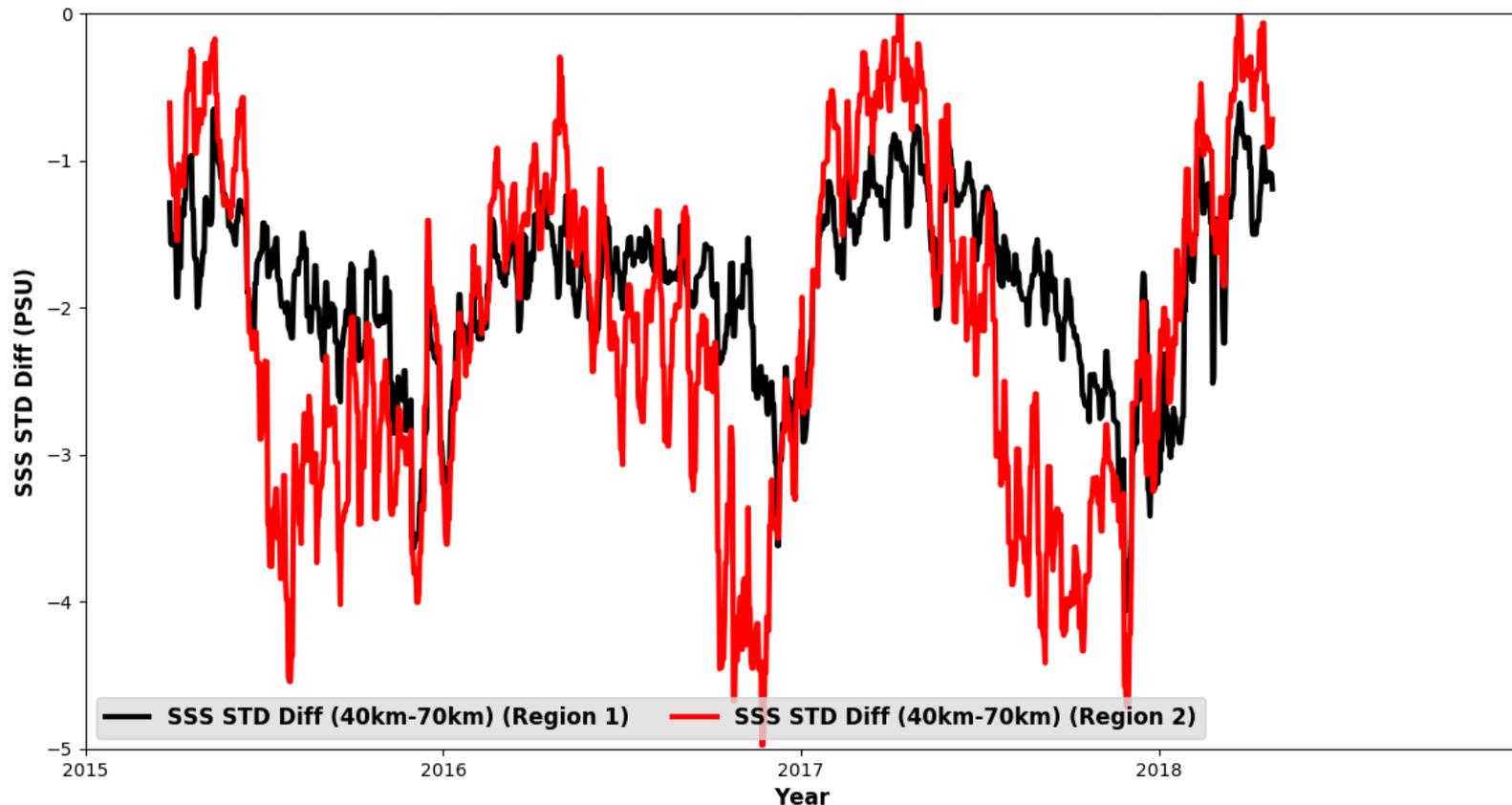
RSS SMAP Averaged SSS Differences between 40km and 70 km Datasets



RSS SMAP SSS STD in Region 1 and Region 2



RSS SMAP SSS STD Differences between 40km and 70 km Datasets



Summary and Conclusion

- 1. SSS is anti-correlated with Precipitation from TRMM with the correlation coeff -0.65**
- 2. SMAP L3 40km and 70km Comparisons**

| SMAP 70km-40km | Region 1 | Region2 |
|-----------------------------|----------|---------|
| SSS Averaged Difference | 1.56 | 3.60 |
| SSS STD Averaged Difference | -1.86 | -2.15 |
| | | |

SMAP Sea Surface Salinity Animation in Amazon Region

2015-03-27 (RSS SMAP 70km 8Day)

