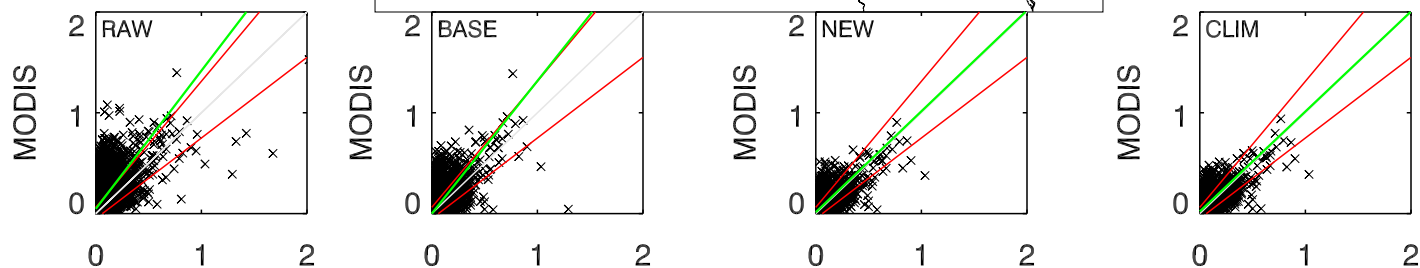
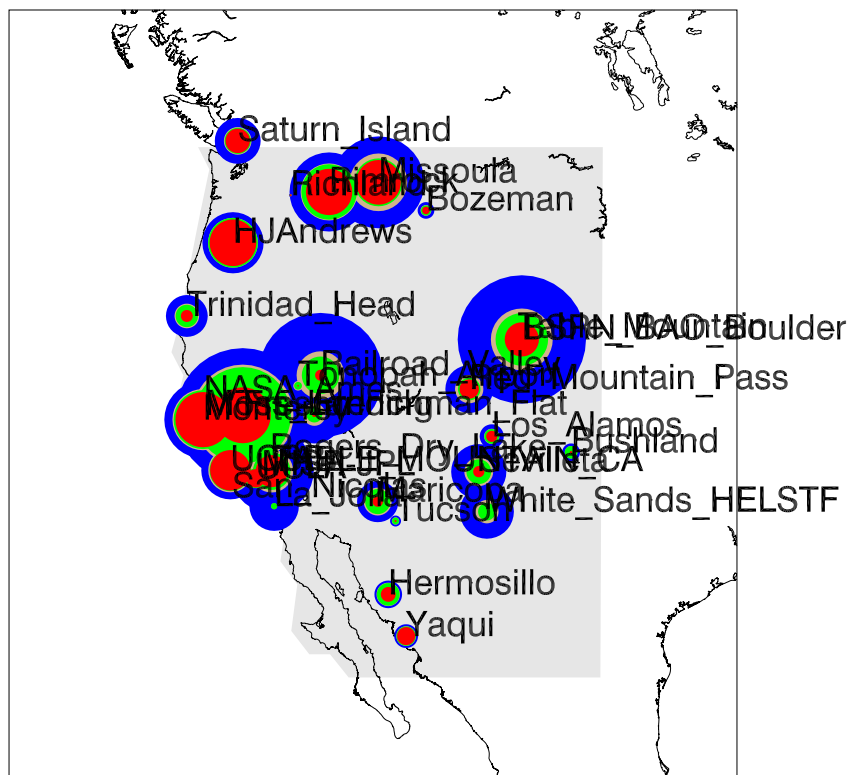


T 38.50N 110.50W W. CONUS  
AERONET AOD: N= 8394  $\bar{\tau}$ =0.09 eta=0.57

MODIS  $\tau$

x RAW  
x BASE  
x NEW  
x STRONG



| Which             | AERONET   |           |               | AERONET |        |           | AERONET  |            |       | AERONET        |  |
|-------------------|-----------|-----------|---------------|---------|--------|-----------|----------|------------|-------|----------------|--|
|                   |           | MODIS AOD | MODIS-AERONET |         |        | % -/in/+  |          | Regression |       |                |  |
|                   |           |           | Mean          | >0.2    | >1.0   | Mean Bias | RMSE     | Tolerance  | Slope | r <sup>2</sup> |  |
| RAW               | (N= 8385) | 0.172     | 0.32          | 0.00    | 0.081  | 0.157     | 5/49/45  | 1.466      | 0.13  |                |  |
| BASE              | (N= 4979) | 0.120     | 0.18          | 0.00    | 0.029  | 0.107     | 7/67/25  | 1.385      | 0.23  |                |  |
| NEW               | (N= 4506) | 0.109     | 0.10          | 0.00    | 0.014  | 0.074     | 5/77/17  | 1.033      | 0.32  |                |  |
| CLIM              | (N= 4540) | 0.116     | 0.11          | 0.00    | 0.020  | 0.074     | 4/76/19  | 1.045      | 0.34  |                |  |
| AERONET AOD > 0.2 |           |           |               |         |        |           |          |            |       |                |  |
| RAW               | (N= 601)  | 0.327     | 0.71          | 0.01    | 0.012  | 0.191     | 19/55/24 | 0.991      | 0.26  |                |  |
| BASE              | (N= 371)  | 0.272     | 0.58          | 0.00    | -0.028 | 0.160     | 27/57/14 | 1.098      | 0.46  |                |  |
| NEW               | (N= 365)  | 0.231     | 0.50          | 0.00    | -0.067 | 0.125     | 29/64/ 5 | 0.887      | 0.52  |                |  |
| CLIM              | (N= 370)  | 0.236     | 0.52          | 0.00    | -0.062 | 0.120     | 28/65/ 5 | 0.891      | 0.51  |                |  |

| Which | Noise | vs $\tau_A$ |             | vs $\tau_M$ |             | Est.@ | Est.@ | Est.@ | Est.@ | Est.@ |
|-------|-------|-------------|-------------|-------------|-------------|-------|-------|-------|-------|-------|
|       | Floor | Diagnostic  |             | Prognostic  |             | 0.1   | 0.2   | 0.4   | 0.6   | 1.0   |
| RAW   | 0.154 | 0.04 +      | 0.28 $\tau$ | -0.02 +     | 0.73 $\tau$ | 0.15  | 0.15  | 0.27  | 0.41  | 0.71  |
| BASE  | 0.102 | 0.03 +      | 0.25 $\tau$ | 0.03 +      | 0.46 $\tau$ | 0.10  | 0.12  | 0.22  | 0.31  | 0.49  |
| NEW   | 0.067 | 0.00 +      | 0.31 $\tau$ | 0.07 +      | 0.21 $\tau$ | 0.09  | 0.11  | 0.15  | 0.19  | 0.28  |
| CLIM  | 0.069 | 0.01 +      | 0.26 $\tau$ | 0.07 +      | 0.20 $\tau$ | 0.09  | 0.11  | 0.15  | 0.19  | 0.27  |