**College Hall pre outlier removal and interpolation**

Testing RMSE(W): 13.91, R2: 0.034, RMSE/peak: 0.1312, NRMSD: 21.84

Cross Validated Testing RMSE(W): 11.07, R2: 0.387, RMSE/peak 0.1045, NRMSD: 17.39

RF (Testing) RMSE(W): 7.81, R2: 0.695, RMSE/peak 0.0737, NRMSD: 12.27

**College hall- outliers removed and interpolated**

Testing RMSE(W): 8.95, R2: 0.600, RMSE/peak: 0.0845, NRMSD: 14.05

Cross Validated Testing RMSE(W): 7.32, R2: 0.733, RMSE/peak 0.0691, NRMSD: 11.50

RF (Testing) RMSE(W): 7.15, R2: 0.745, RMSE/peak 0.0675, NRMSD: 11.23

**Vance Hall- Pre-Processing**

Testing RMSE(W): 24.49, R2: 0.000, RMSE/peak: 0.1300, NRMSD: 17.49

Cross Validated Testing RMSE(W): 19.94, R2: 0.000, RMSE/peak 0.1058, NRMSD: 14.24

RF (Testing) RMSE(W): 14.55, R2: 0.380, RMSE/peak 0.0772, NRMSD: 10.39

**Vance hall- Post Processing**

Testing RMSE(W): 19.67, R2: 0.000, RMSE/peak: 0.1044, NRMSD: 14.04

Cross Validated Testing RMSE(W): 15.42, R2: 0.301, RMSE/peak 0.0818, NRMSD: 11.01

RF (Testing) RMSE(W): 12.97, R2: 0.505, RMSE/peak 0.0688, NRMSD: 9.26

**DRL Pre- Proc**

Testing RMSE(W): 34.72, R2: 0.000, RMSE/peak: 0.0983, NRMSD: 13.12

Cross Validated Testing RMSE(W): 26.27, R2: 0.416, RMSE/peak 0.0744, NRMSD: 9.93

RF (Testing) RMSE(W): 22.76, R2: 0.562, RMSE/peak 0.0644, NRMSD: 8.60

**DRL Post-Processing**

Testing RMSE(W): 31.25, R2: 0.151, RMSE/peak: 0.0884, NRMSD: 11.80

Cross Validated Testing RMSE(W): 27.99, R2: 0.318, RMSE/peak 0.0792, NRMSD: 10.57

RF (Testing) RMSE(W): 23.80, R2: 0.507, RMSE/peak 0.0674, NRMSD: 8.99

Goddard Labs Pre Processing

**Goddard labs-Preprocessing**

Testing RMSE(W): 11.66, R2: 0.000, RMSE/peak: 0.1072, NRMSD: 25.99

Cross Validated Testing RMSE(W): 11.44, R2: 0.000, RMSE/peak 0.1052, NRMSD: 25.49

RF (Testing) RMSE(W): 7.95, R2: 0.000, RMSE/peak 0.0732, NRMSD: 17.73

**Goddard labs-Postprocessing**

Testing RMSE(W): 7.33, R2: 0.000, RMSE/peak: 0.1095, NRMSD: 16.41

Cross Validated Testing RMSE(W): 7.21, R2: 0.000, RMSE/peak 0.1077, NRMSD: 16.14

RF (Testing) RMSE(W): 6.95, R2: 0.000, RMSE/peak 0.1037, NRMSD: 15.55

**Vagelos Labs- Preprocessing**

Testing RMSE(W): 61.63, R2: 0.000, RMSE/peak: 0.3761, NRMSD: 68.87

Cross Validated Testing RMSE(W): 60.99, R2: 0.000, RMSE/peak 0.3722, NRMSD: 68.15

RF (Testing) RMSE(W): 61.20, R2: 0.000, RMSE/peak 0.3734, NRMSD: 68.38

**Vagelos Labs-PostProcessing**

Testing RMSE(W): 26.71, R2: 0.000, RMSE/peak: 0.1994, NRMSD: 44.28

Cross Validated Testing RMSE(W): 26.52, R2: 0.000, RMSE/peak 0.1981, NRMSD: 43.98

RF (Testing) RMSE(W): 26.04, R2: 0.000, RMSE/peak 0.1945, NRMSD: 43.18

**Annenberg Labs Pre Processing**

Testing RMSE(W): 14.27, R2: 0.000, RMSE/peak: 0.1565, NRMSD: 23.76

Cross Validated Testing RMSE(W): 13.18, R2: 0.000, RMSE/peak 0.1445, NRMSD: 21.94

RF (Testing) RMSE(W): 11.96, R2: 0.000, RMSE/peak 0.1311, NRMSD: 19.91

**Annenberg Labs Post Processing**

Testing RMSE(W): 13.73, R2: 0.000, RMSE/peak: 0.1532, NRMSD: 22.84

Cross Validated Testing RMSE(W): 13.13, R2: 0.000, RMSE/peak 0.1465, NRMSD: 21.84

RF (Testing) RMSE(W): 11.95, R2: 0.000, RMSE/peak 0.1333, NRMSD: 19.88

**Fisher Pre-Processing**

Testing RMSE(W): 16.75, R2: 0.000, RMSE/peak: 0.2371, NRMSD: 43.58

Cross Validated Testing RMSE(W): 15.02, R2: 0.011, RMSE/peak 0.2127, NRMSD: 39.09

RF (Testing) RMSE(W): 13.36, R2: 0.218, RMSE/peak 0.1892, NRMSD: 34.77 Pre-Processing

**Fisher Post-Processing**

Testing RMSE(W): 12.39, R2: 0.121, RMSE/peak: 0.1755, NRMSD: 31.40

Cross Validated Testing RMSE(W): 10.65, R2: 0.351, RMSE/peak 0.1507, NRMSD: 26.97

RF (Testing) RMSE(W): 9.32, R2: 0.503, RMSE/peak 0.1320, NRMSD: 23.61

**CRB Pre-Processing**

Testing RMSE(W): 89.23, R2: 0.000, RMSE/peak: 0.1660, NRMSD: 19.36

Cross Validated Testing RMSE(W): 48.92, R2: 0.000, RMSE/peak 0.0910, NRMSD: 10.61

RF (Testing) RMSE(W): 37.08, R2: 0.051, RMSE/peak 0.0690, NRMSD: 8.04

CRB Post-Processing

**CRB Post Processing**

Testing RMSE(W): 24.03, R2: 0.253, RMSE/peak: 0.0447, NRMSD: 5.20

Cross Validated Testing RMSE(W): 20.98, R2: 0.431, RMSE/peak 0.0390, NRMSD: 4.54

RF (Testing) RMSE(W): 15.45, R2: 0.692, RMSE/peak 0.0287, NRMSD: 3.34

**Annenberg Center Pre Processing**

Testing RMSE(W): 18.55, R2: 0.000, RMSE/peak: 0.1590, NRMSD: 29.31

Cross Validated Testing RMSE(W): 18.03, R2: 0.000, RMSE/peak 0.1546, NRMSD: 28.49

RF (Testing) RMSE(W): 17.65, R2: 0.000, RMSE/peak 0.1513, NRMSD: 27.88

**Annenberg Center Post-Processing**

Testing RMSE(W): 18.71, R2: 0.000, RMSE/peak: 0.1699, NRMSD: 29.46

Cross Validated Testing RMSE(W): 17.66, R2: 0.000, RMSE/peak 0.1603, NRMSD: 27.81

RF (Testing) RMSE(W): 17.81, R2: 0.000, RMSE/peak 0.1617, NRMSD: 28.05

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| --- | --- | --- | --- |
| Building | Method | Before Processing NRMSE % | After Processing NRMSE % |
| College Hall | Single Tree | 21.84 | 14.05 |
| Cross-Validated Tree | 17.39 | 11.50 |
| Random Forest | 12.27 | 11.23 |
| Vance Hall | Single Tree | 17.49 | 14.04 |
| Cross-Validated Tree | 14.24 | 11.01 |
| Random Forest | 10.39 | 9.26 |
| DRL | Single Tree | 13.12 | 11.80 |
| Cross-Validated Tree | 9.93 | 10.57 |
| Random Forest | 8.60 | 8.99 |
| Goddard Labs | Single Tree | 25.99 | 16.41 |
| Cross-Validated Tree | 25.49 | 16.14 |
| Random Forest | 17.73 | 15.55 |
| Vagelos Labs | Single Tree | 68.87 | 44.28 |
| Cross-Validated Tree | 68.15 | 43.98 |
| Random Forest | 68.38 | 43.18 |
| Annenberg School | Single Tree | 23.76 | 22.84 |
| Cross-Validated Tree | 21.94 | 21.84 |
| Random Forest | 19.91 | 19.88 |
| Fisher and Duhring Wings | Single Tree | 43.58 | 31.40 |
| Cross-Validated Tree | 39.09 | 26.97 |
| Random Forest | 34.77 | 23.61 |
| CRB | Single Tree | 19.36 | 5.20 |
| Cross-Validated Tree | 10.61 | 4.54 |
| Random Forest | 8.04 | 3.34 |
| Annenberg Center | Single Tree | 29.31 | 29.46 |
| Cross-Validated Tree | 28.49 | 27.81 |
| Random Forest | 27.88 | 28.05 |