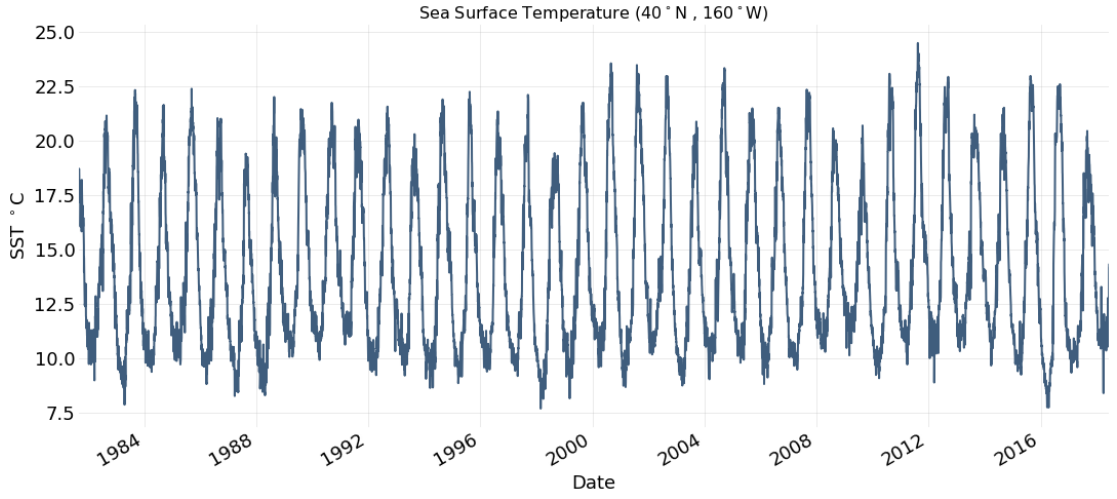
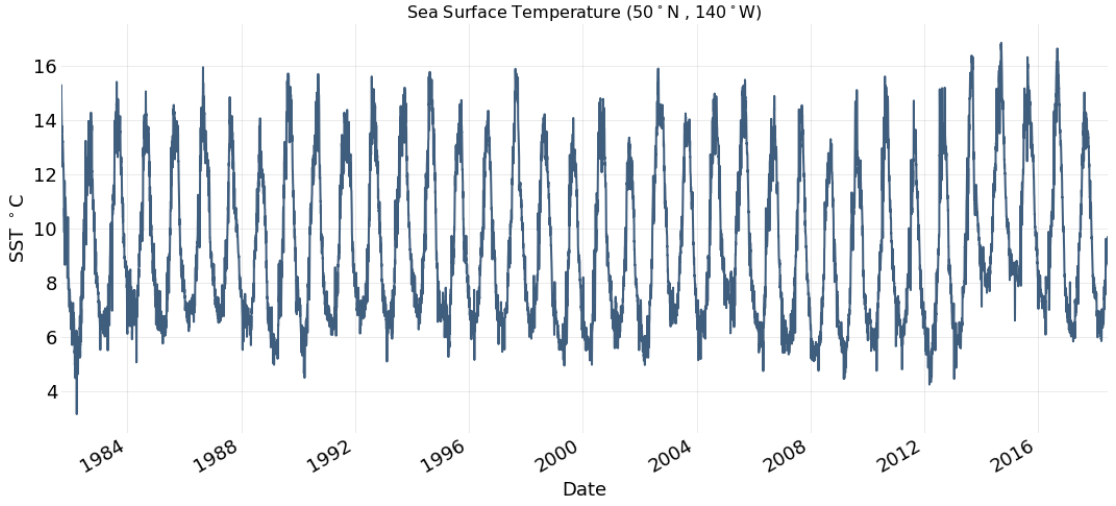
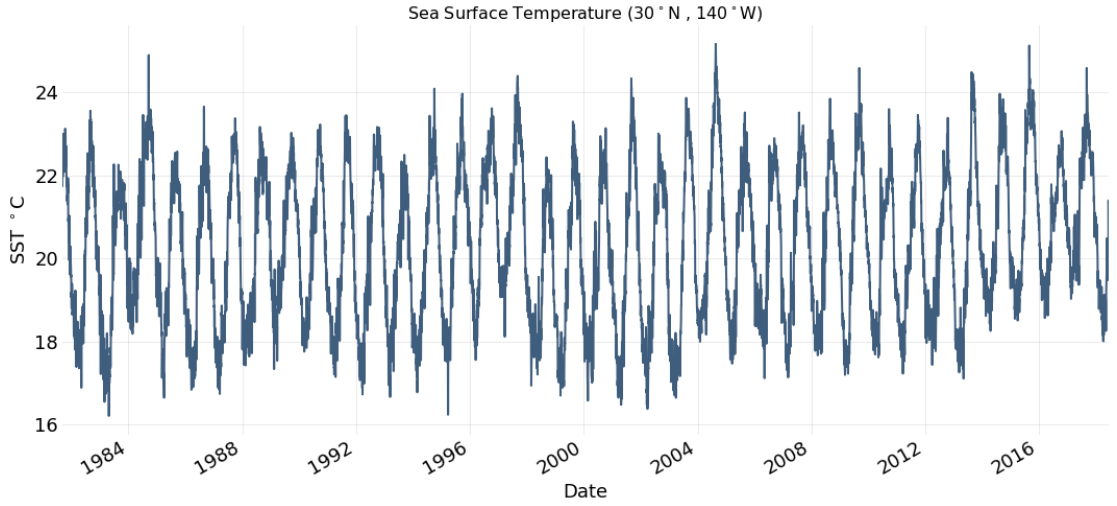
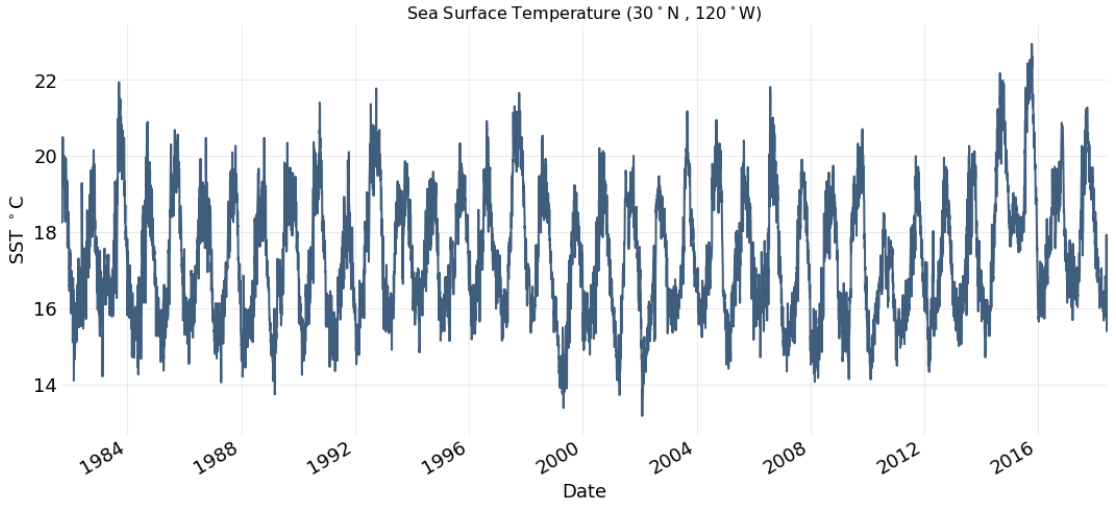
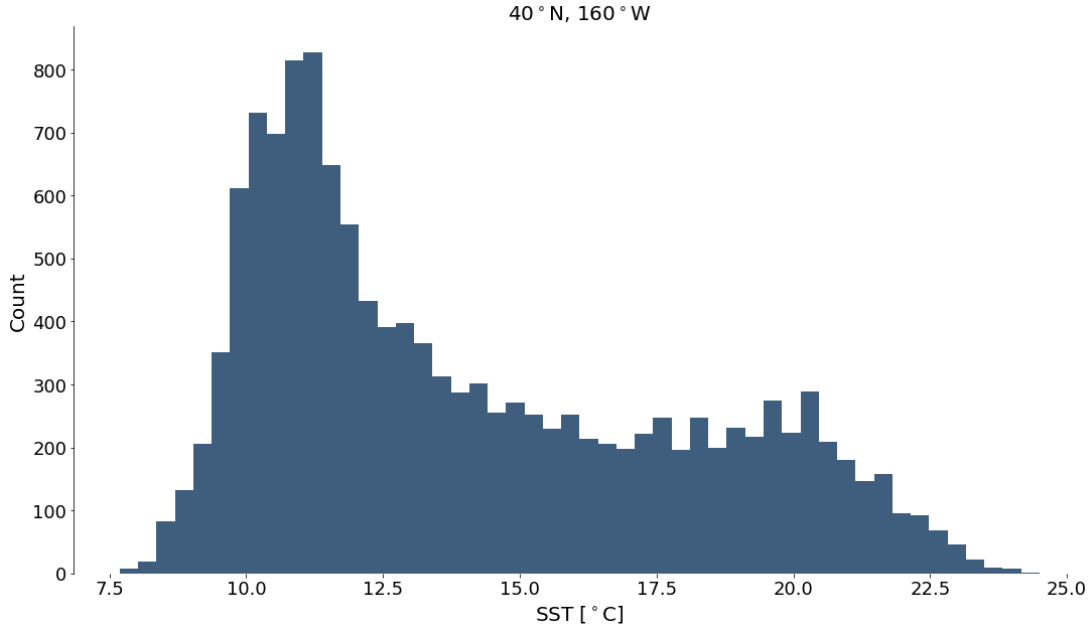


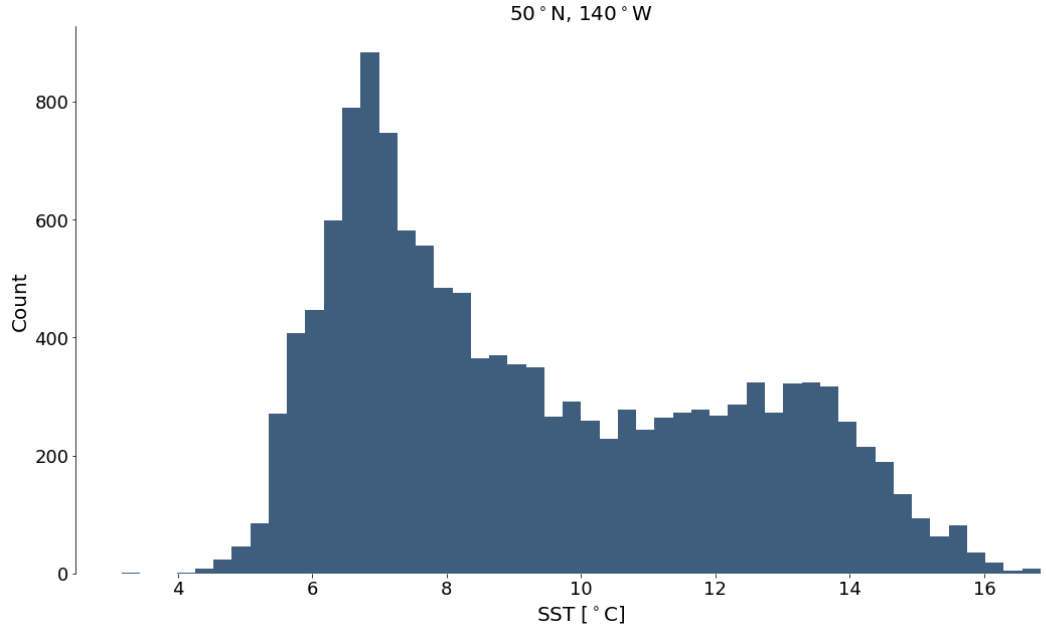


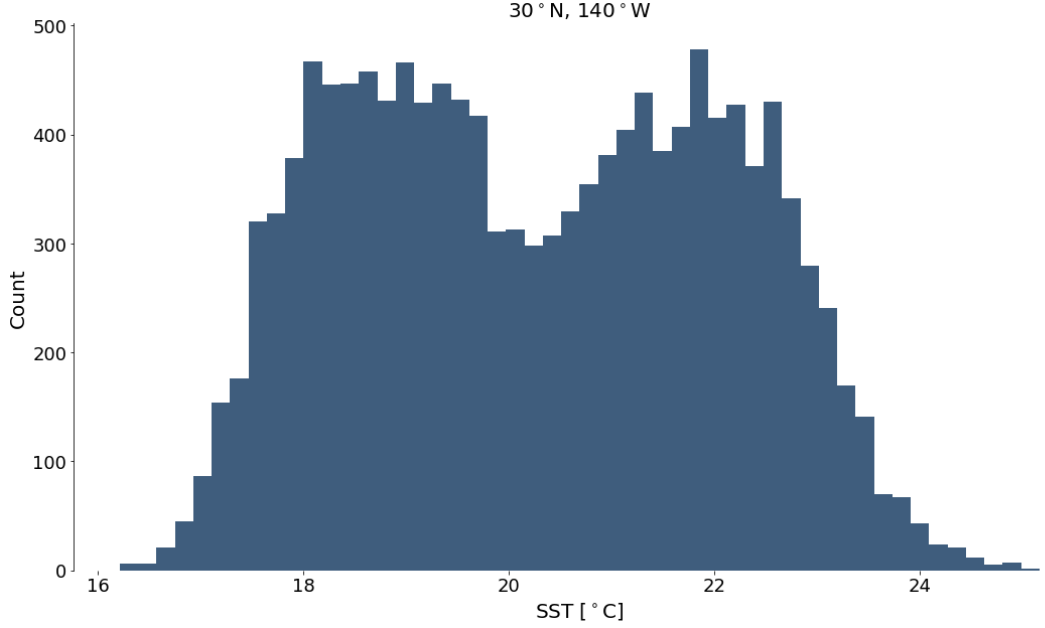


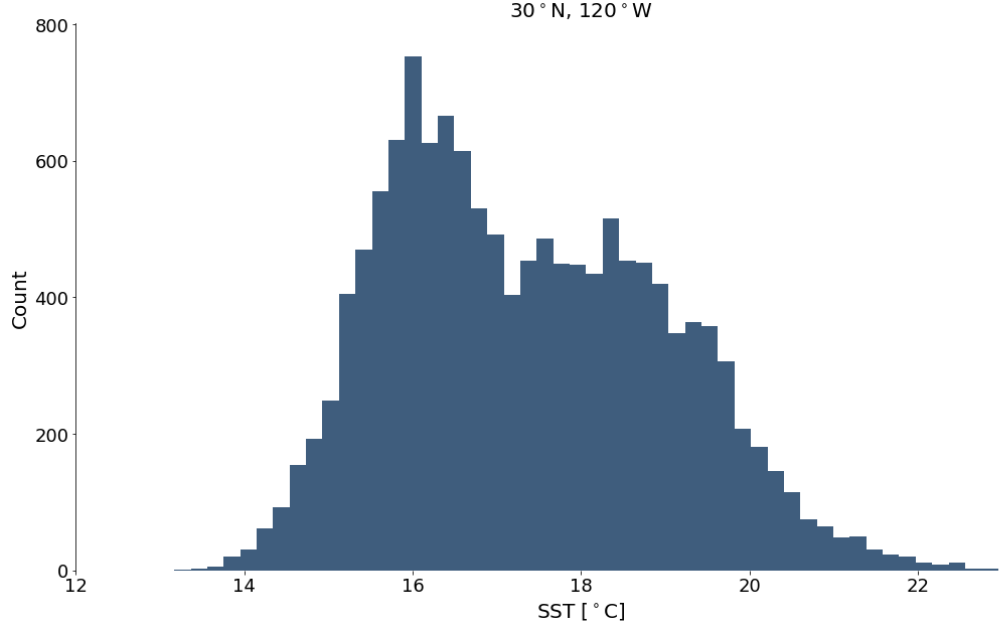


Time series of sea surface temperature at 4 different ocean points in the North Pacific. Daily data is shown from 1981-09-01 through 2018-06-11.

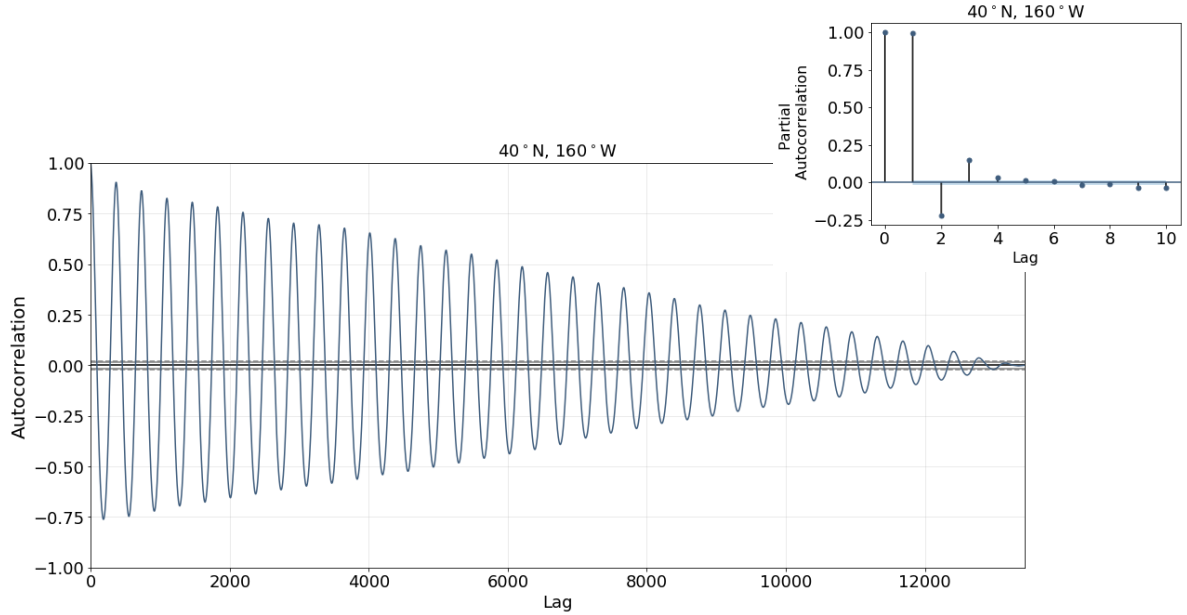


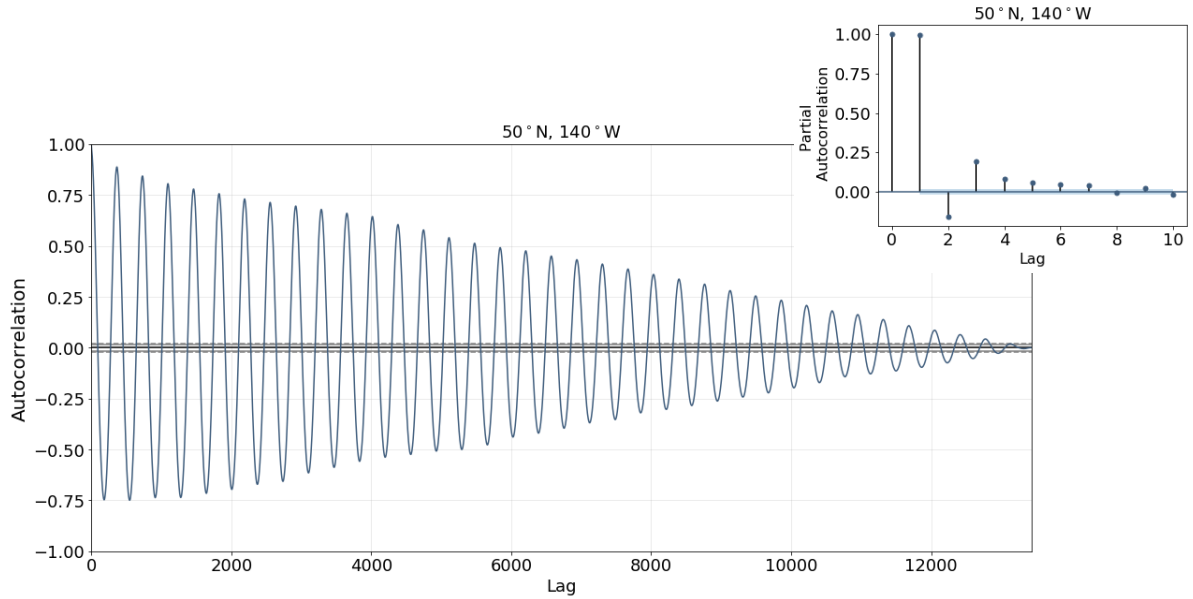


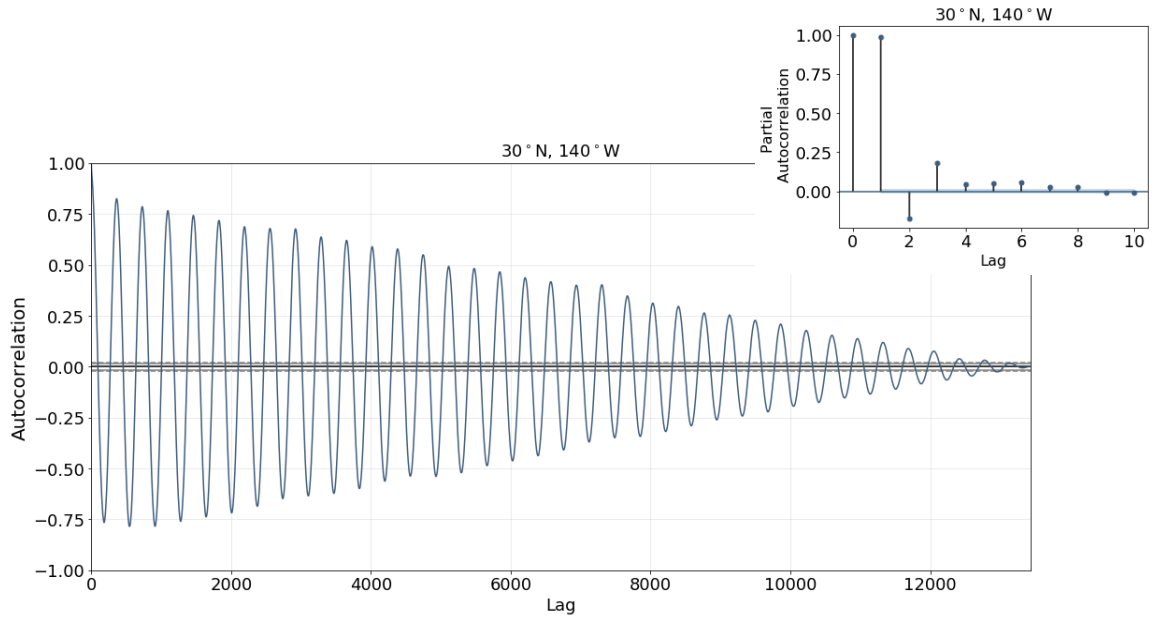


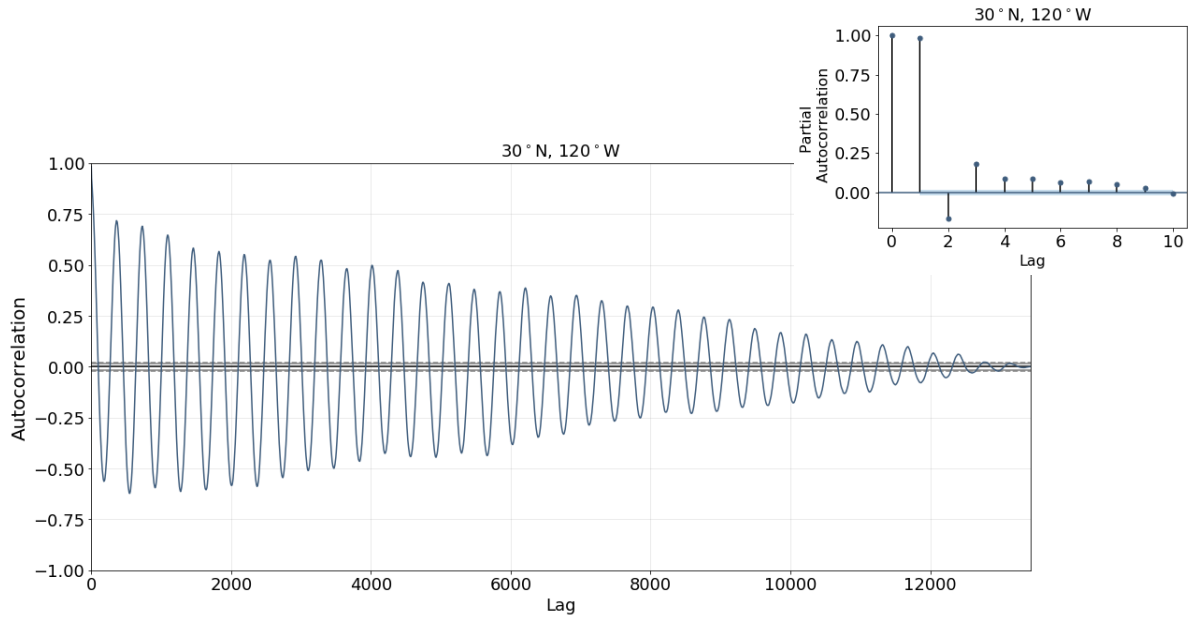


The distribution of sea surface temperature is primarily bimodal and varies due to differences in seasonal variability.

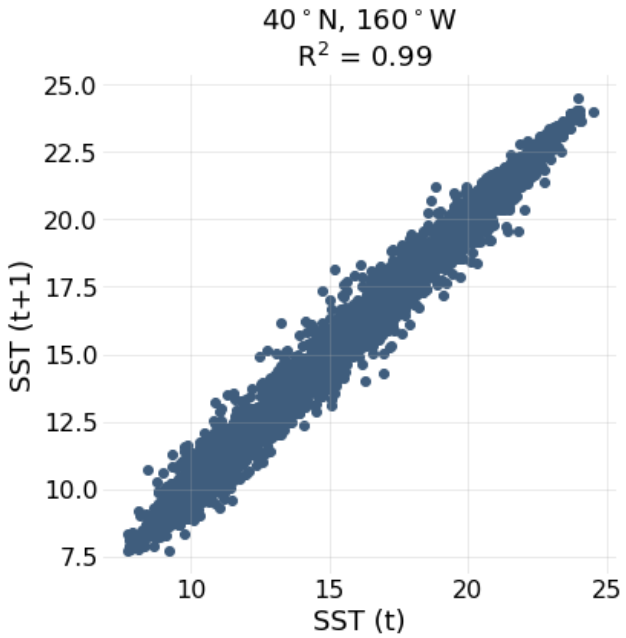


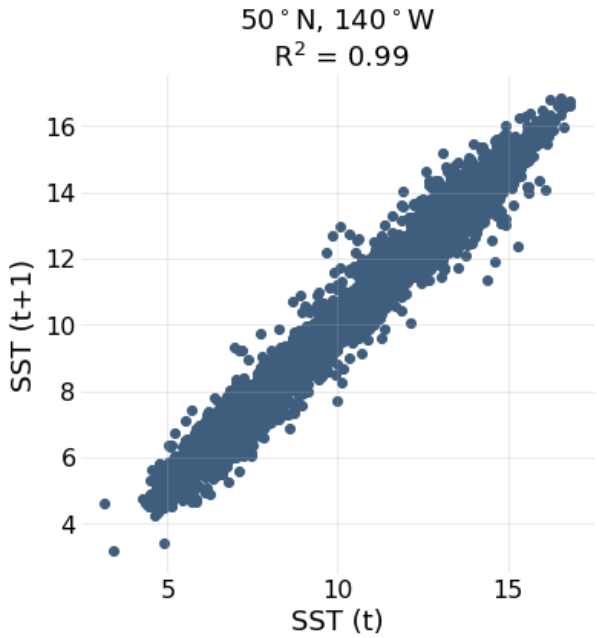


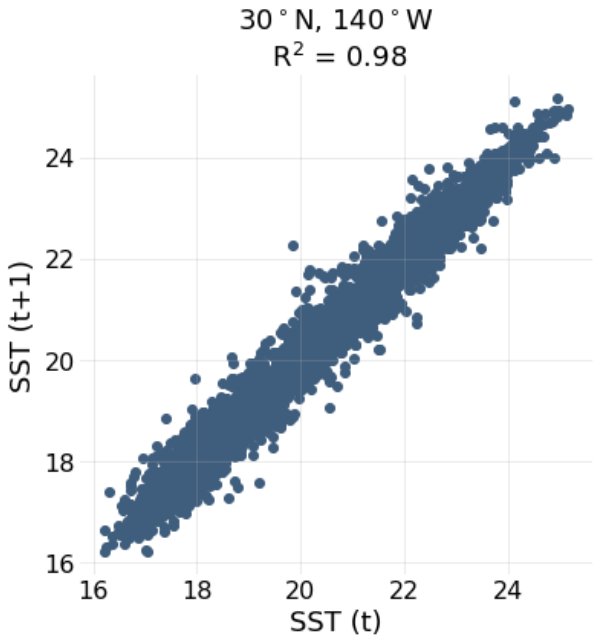


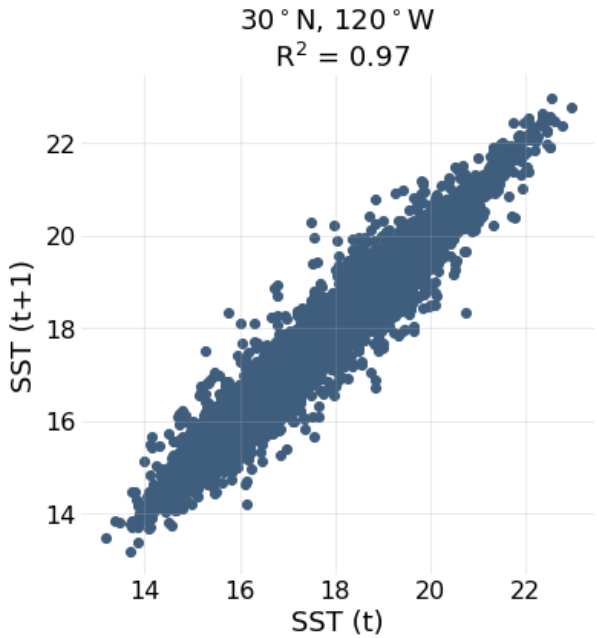


Autocorrelatoin shows how related SST values are at various time lags. These time series are highly non-stationary and non-random because they have a strong dependence on time. The autocorrelatoin is significantly non-zero. The cyclic patterns are caused by changes in season between summer and winter each previous year.

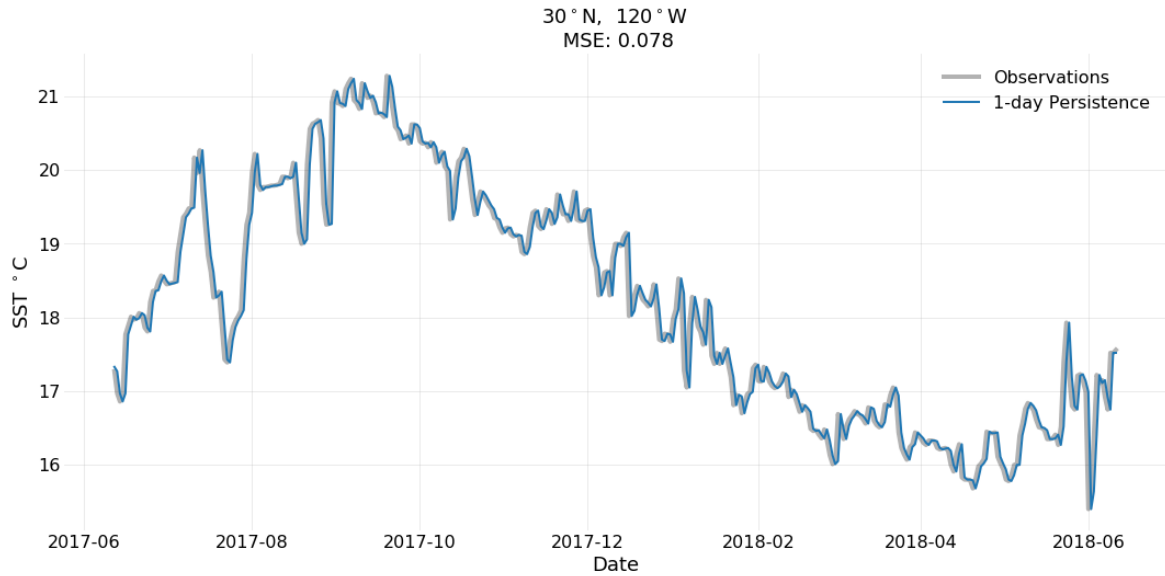




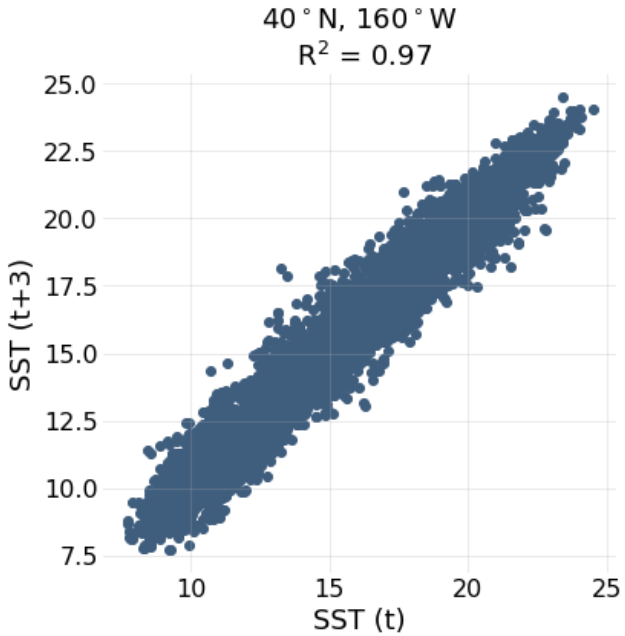


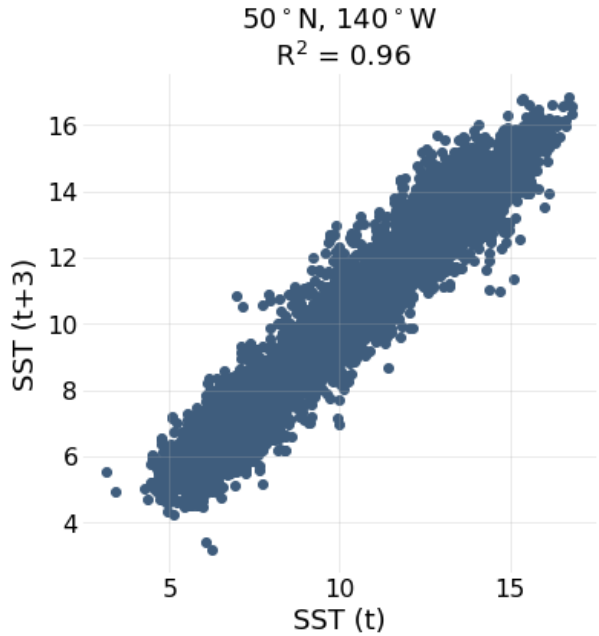


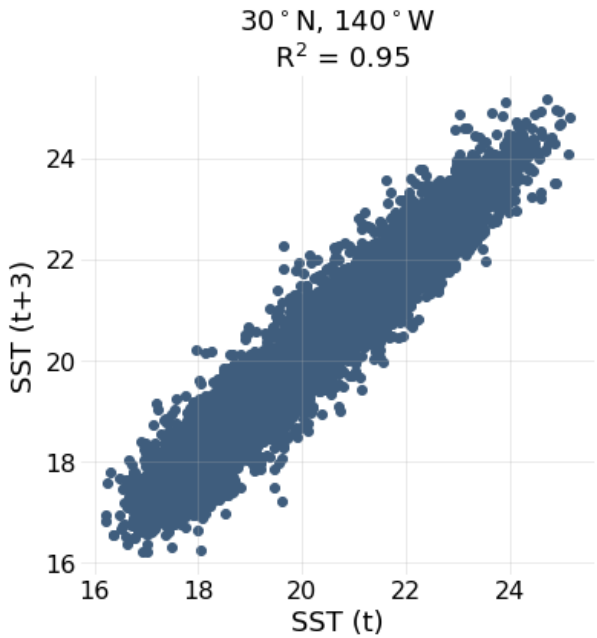
Lag plots the correlation between temperature at time(t) on the x-axis with temperature at time(t+1) on the y-axis.

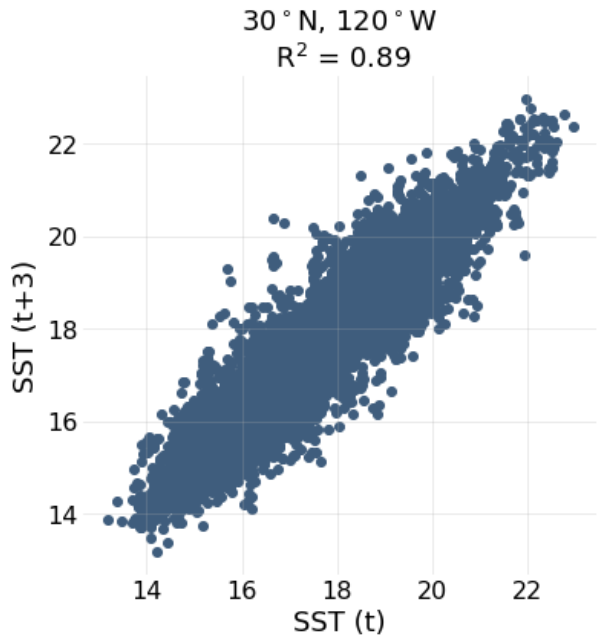


Persistence prediction for a 1-day lag.

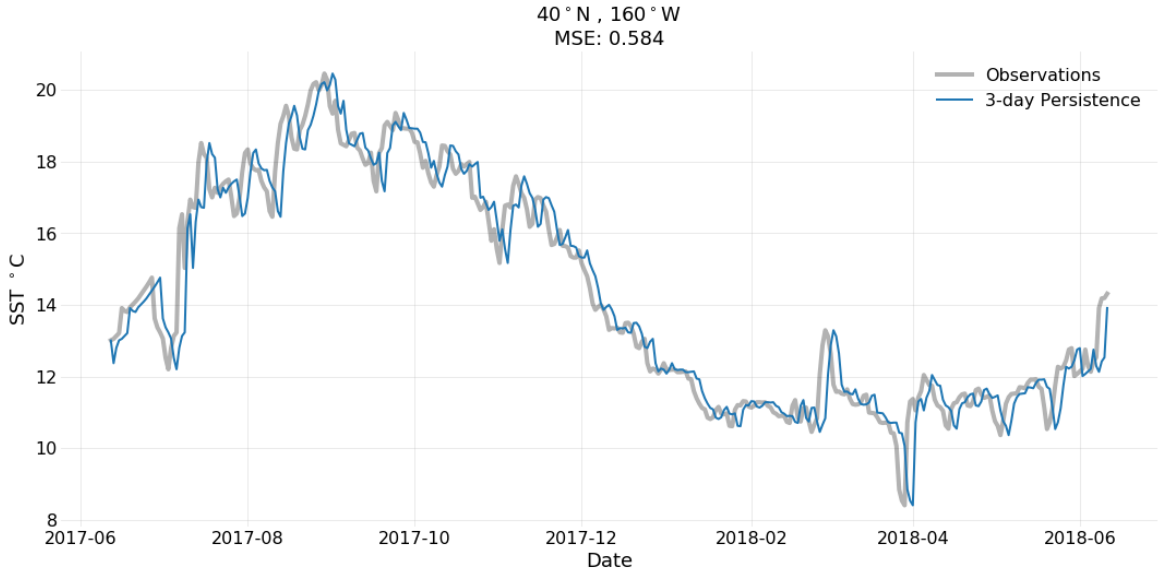


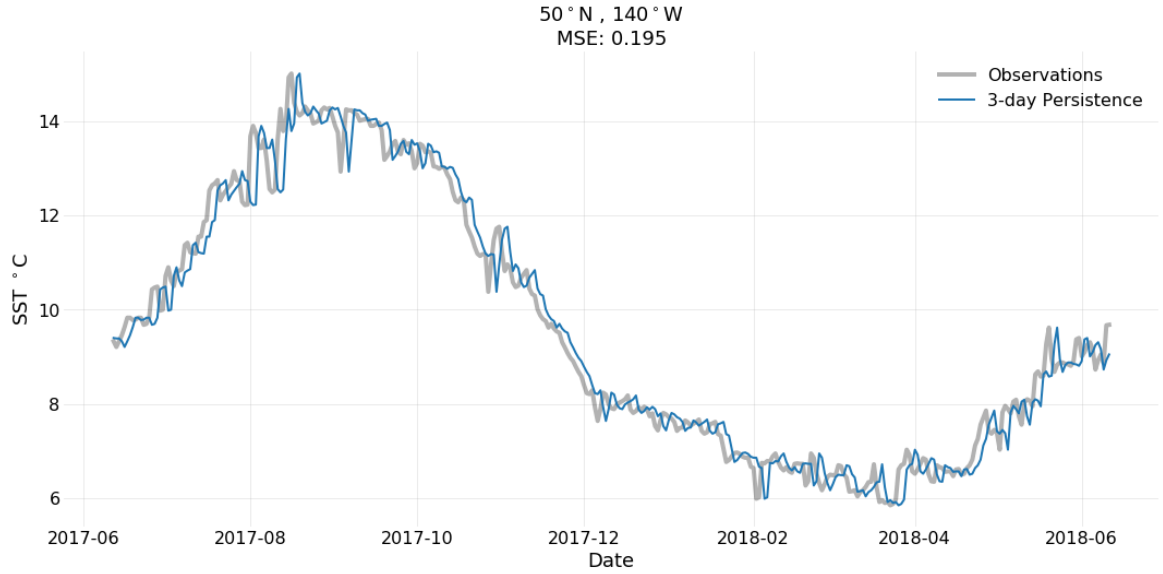


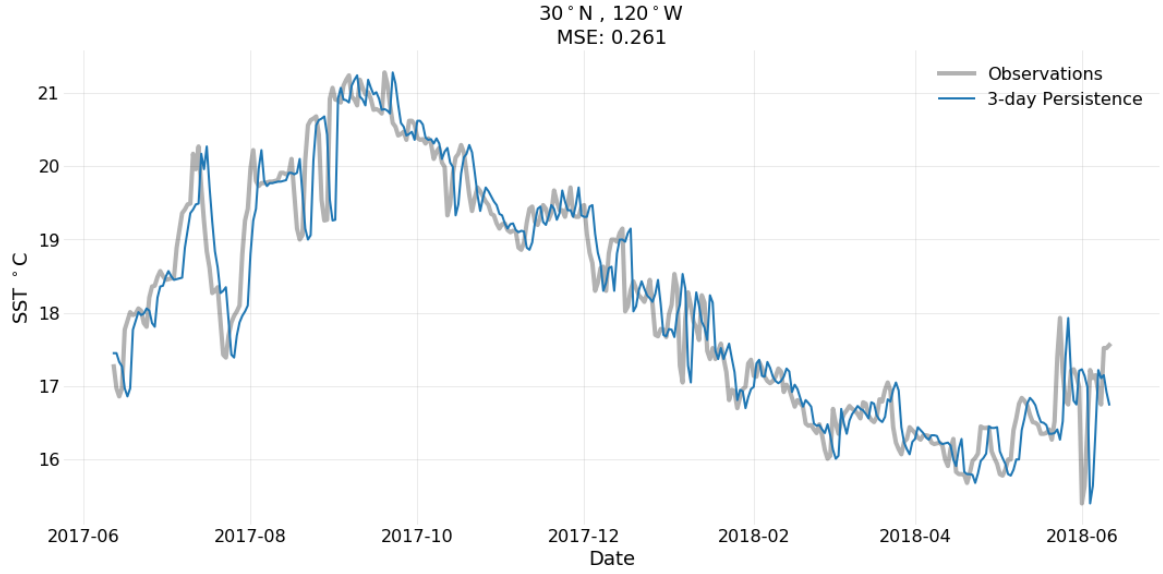




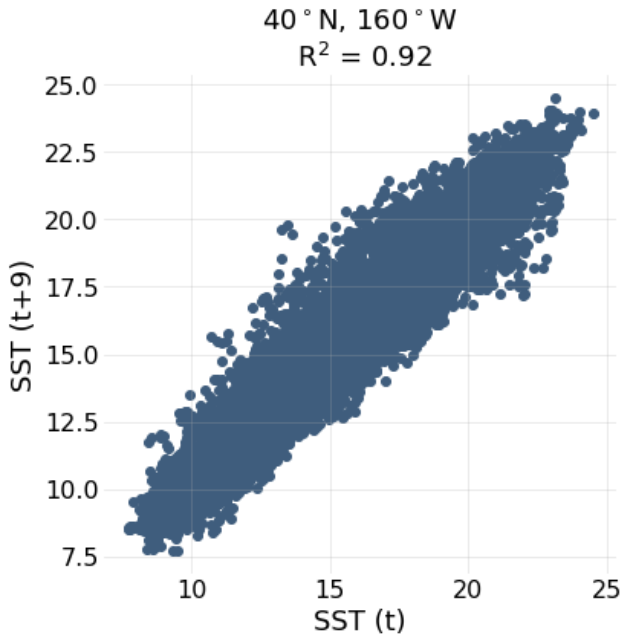
Lag plots the correlation between temperature at time(t) on the x-axis with temperature at time(t+3) on the y-axis.

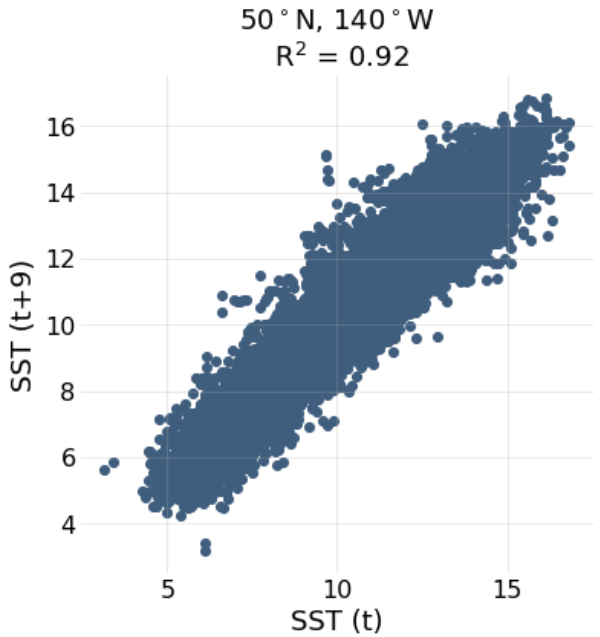


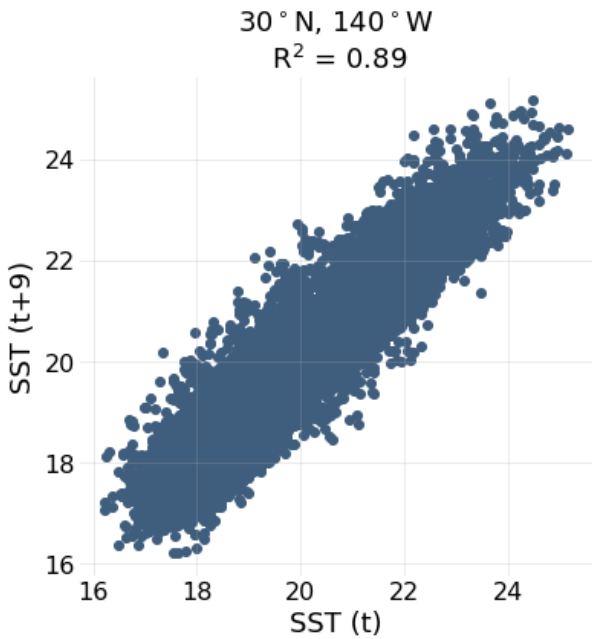


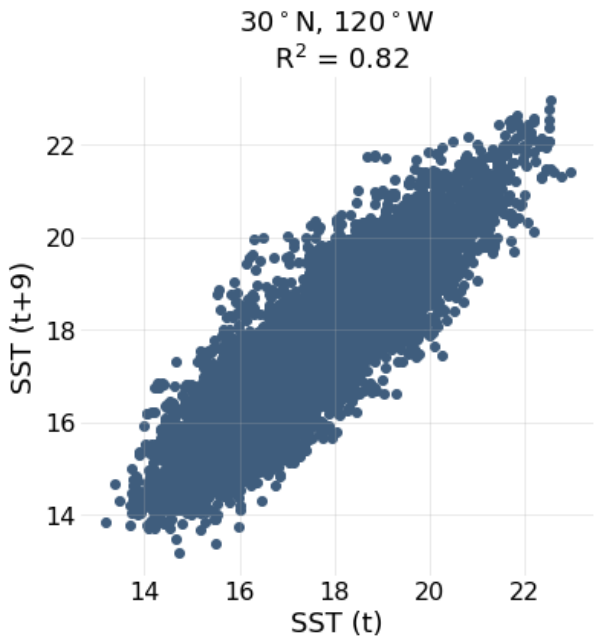


Persistence prediction for a 3-day lag.

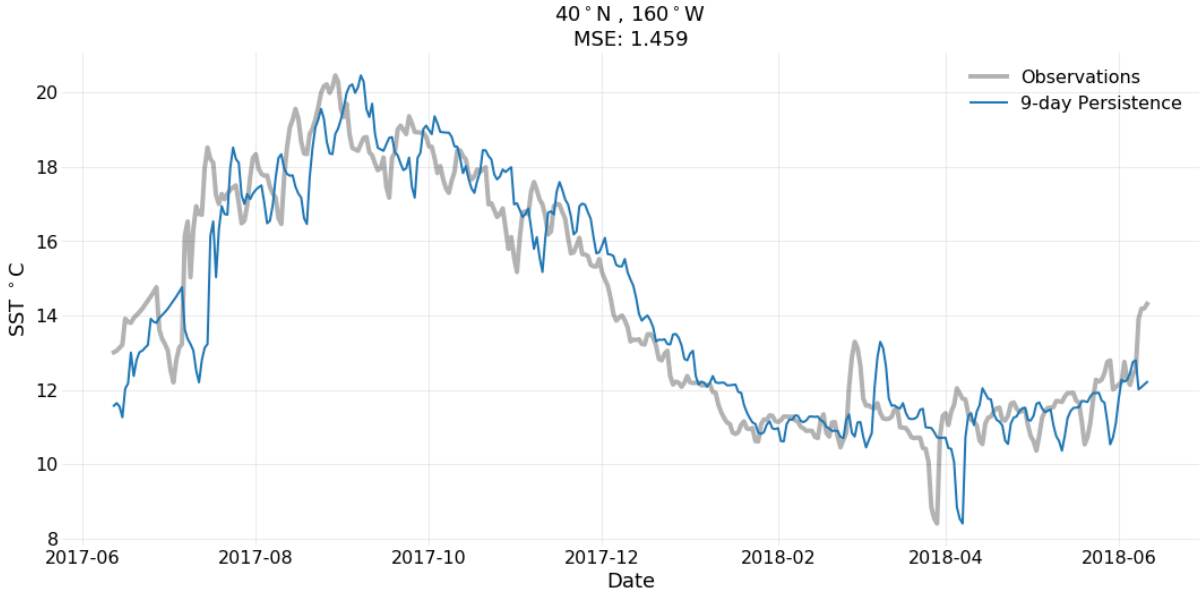


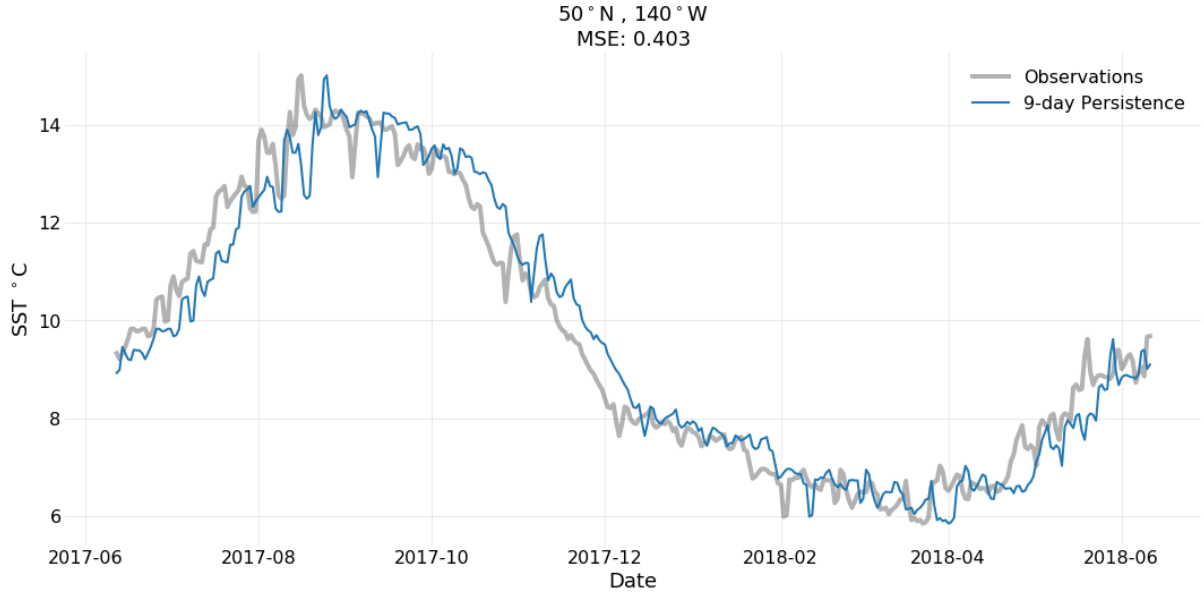


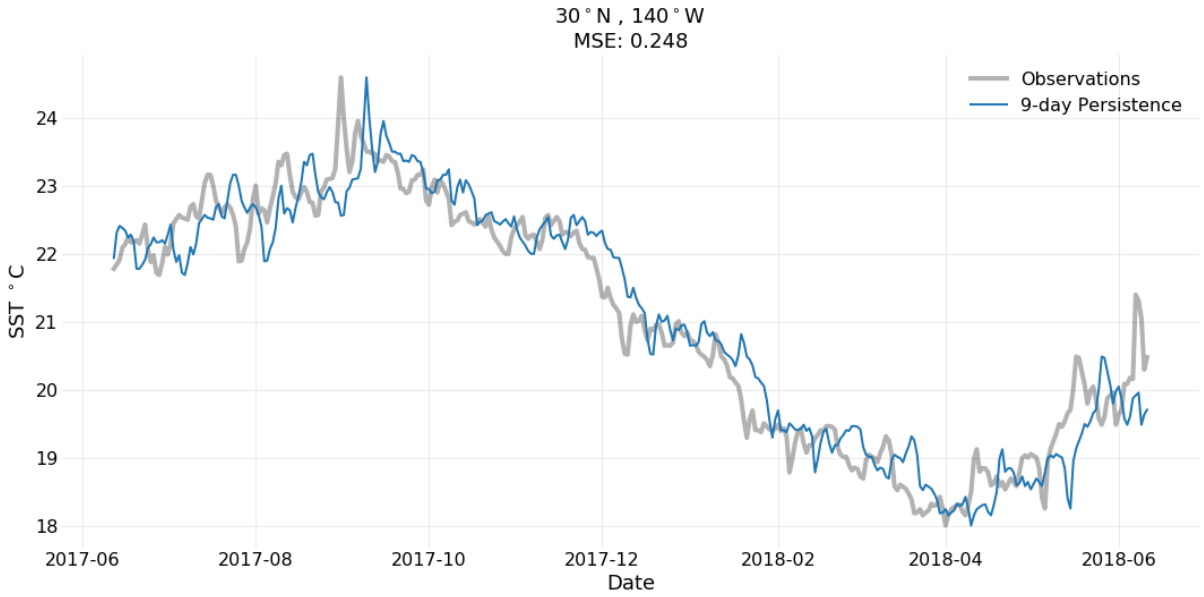


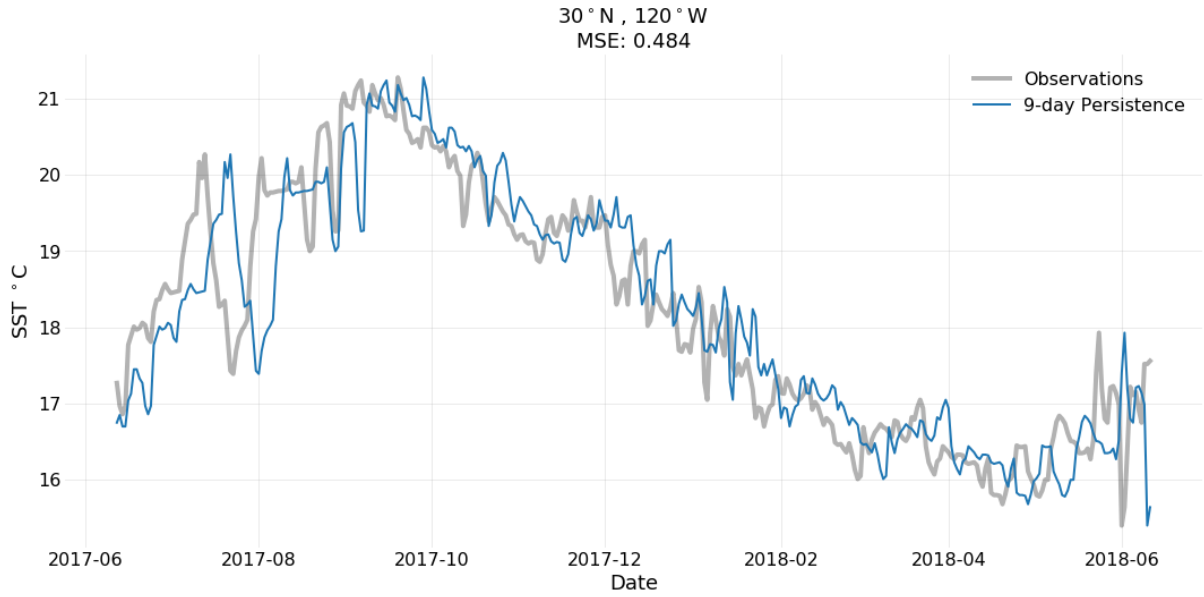


Lag plots the correlation between temperature at time(t) on the x-axis with temperature at time(t+9) on the y-axis.









Persistence prediction for a 9-day lag.