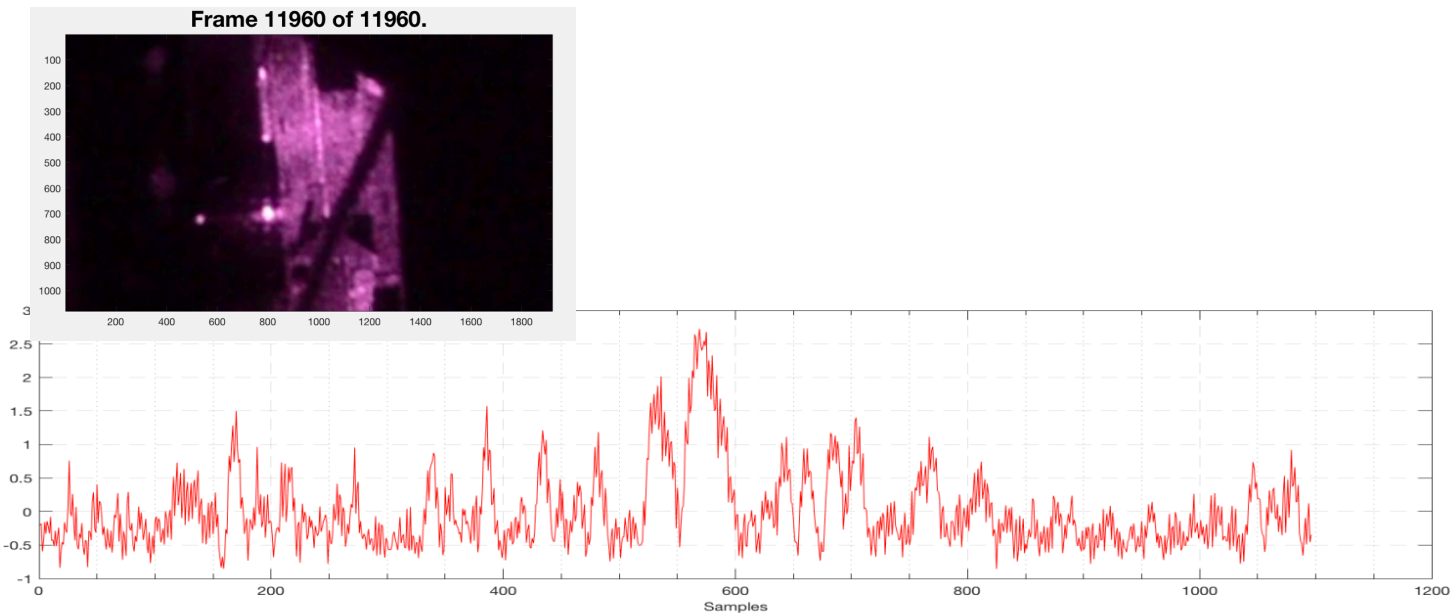
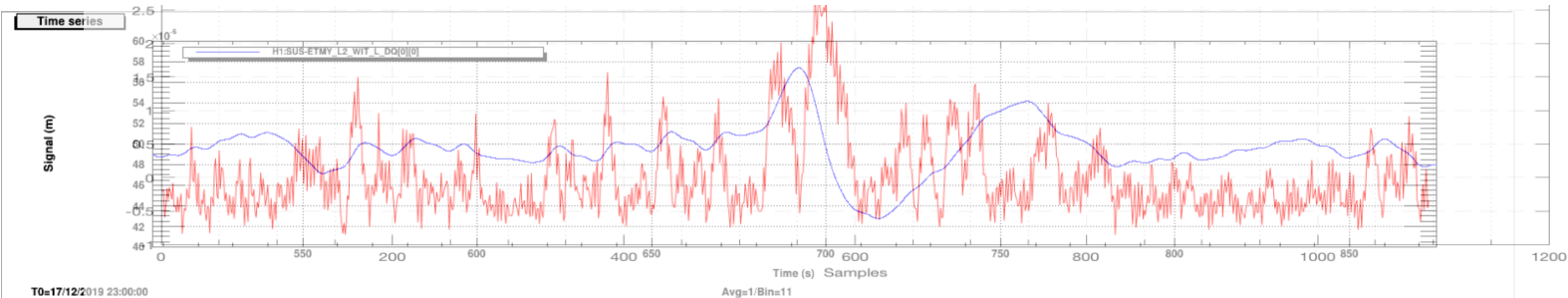


Figure 2a. Light modulation in movie of test mass (central region of movie at <https://youtu.be/WkNR89ItXF8>) is correlated with rapid changes in the distance between main and reaction chains.

Time series of the standard deviation of differences between pixel values in successive frames of the movie. When the standard deviation is large, the grey values of pixels in the movie tend to be changing rapidly. Each frame was an average of 10 1/30th of a second frames.



Overlap. Notice that the pixels change more as the slope of the distance between chains increases.



Signal from BOSEM witnessing distance between L2 main and reaction chains: ETMY L2 WIT L

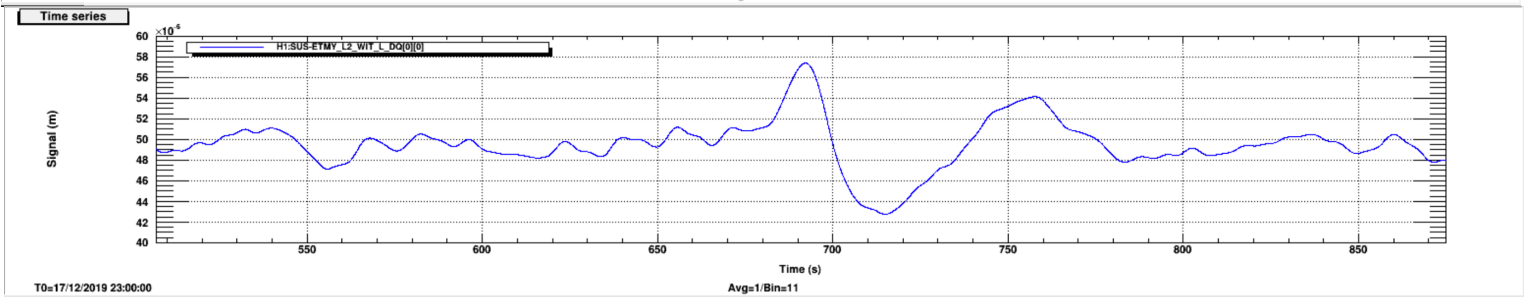
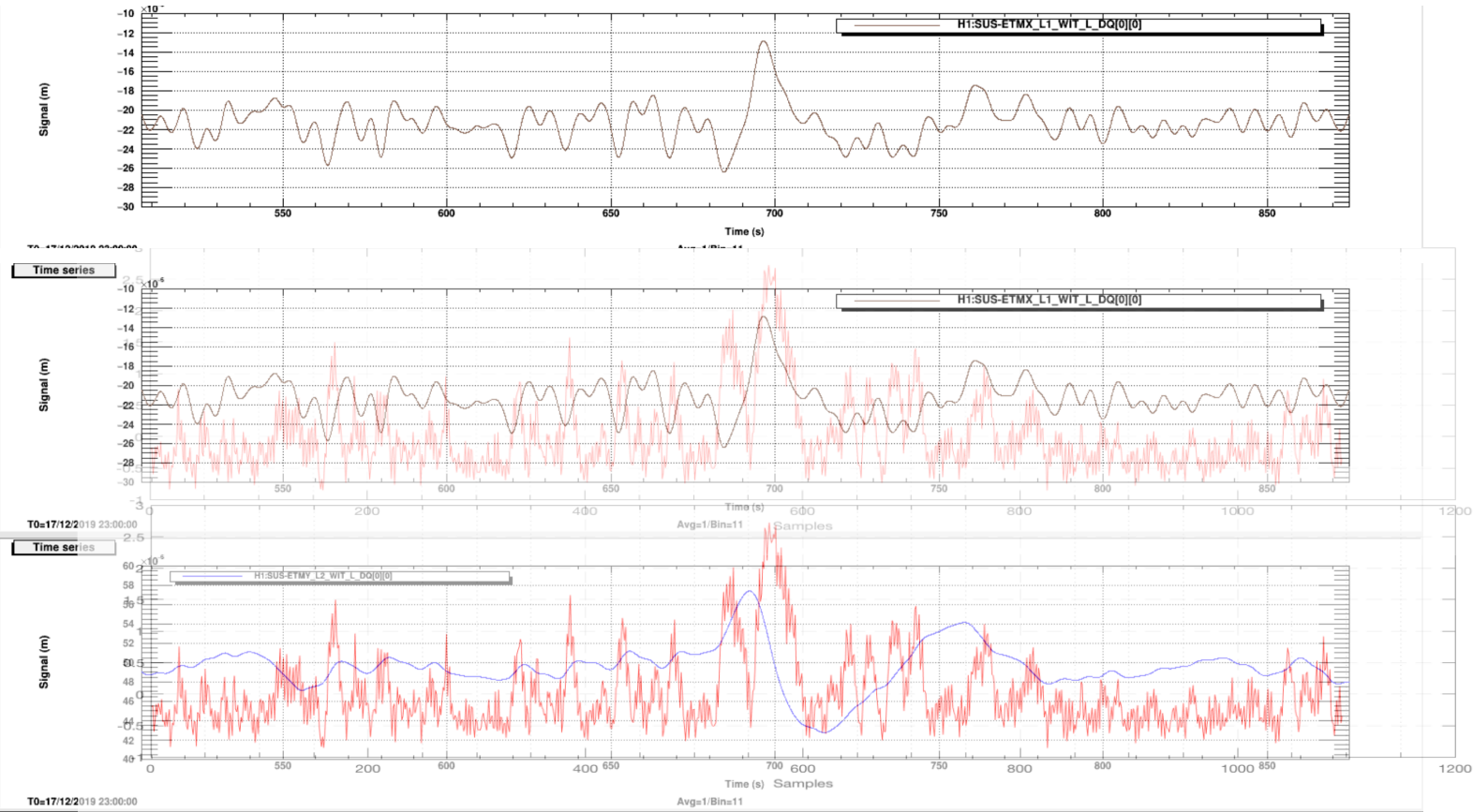


Figure 2b. Light modulation in the movie correlates better with the distance between the local reaction and main chains than with the larger motion at the other test mass.

Displacement between test and reaction chains at EX



Overlap showing poor correlation between the light modulation in EY movie and distance between chains at EX

For comparison, shows good correlation with distance between chains at EY