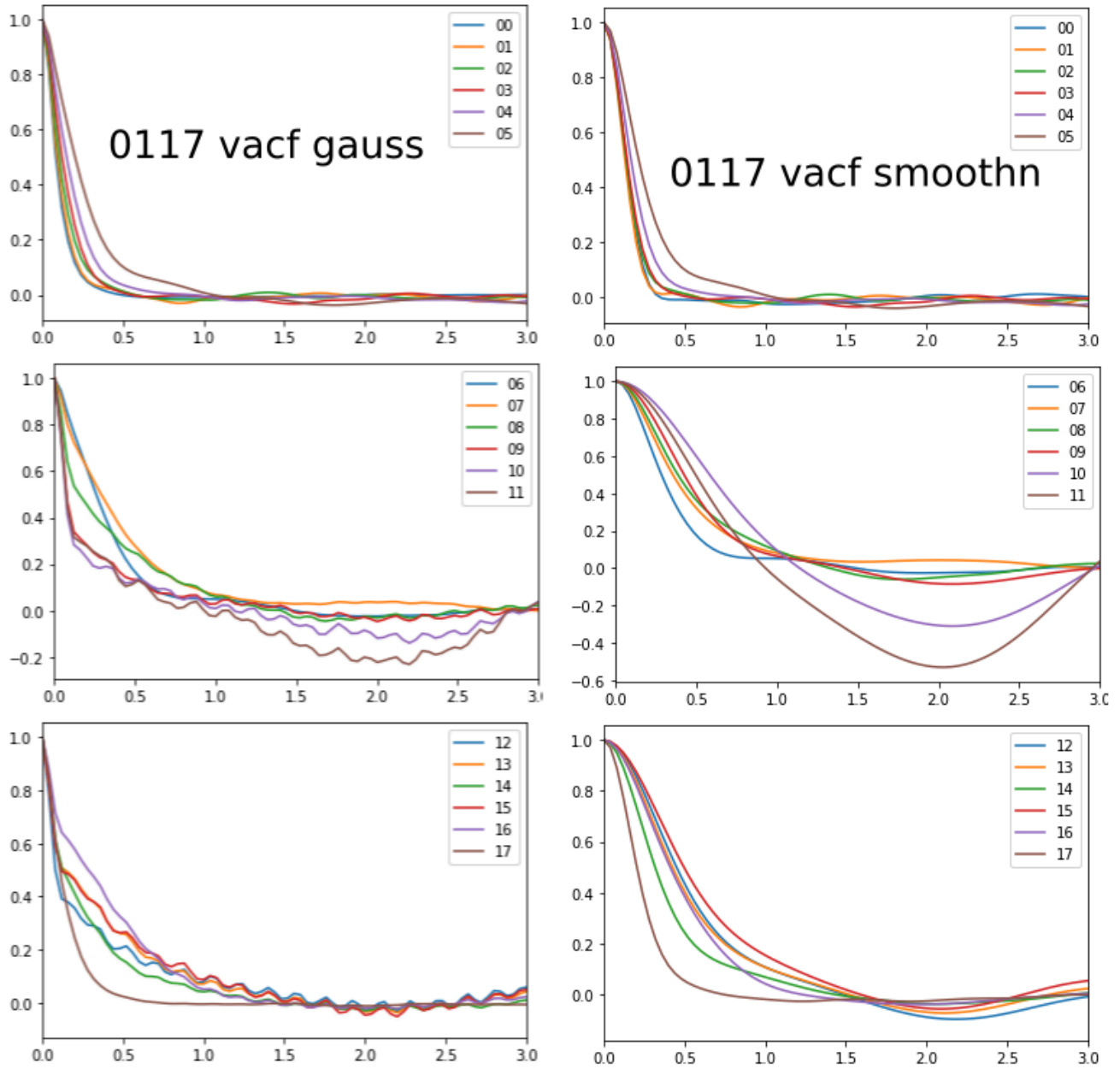
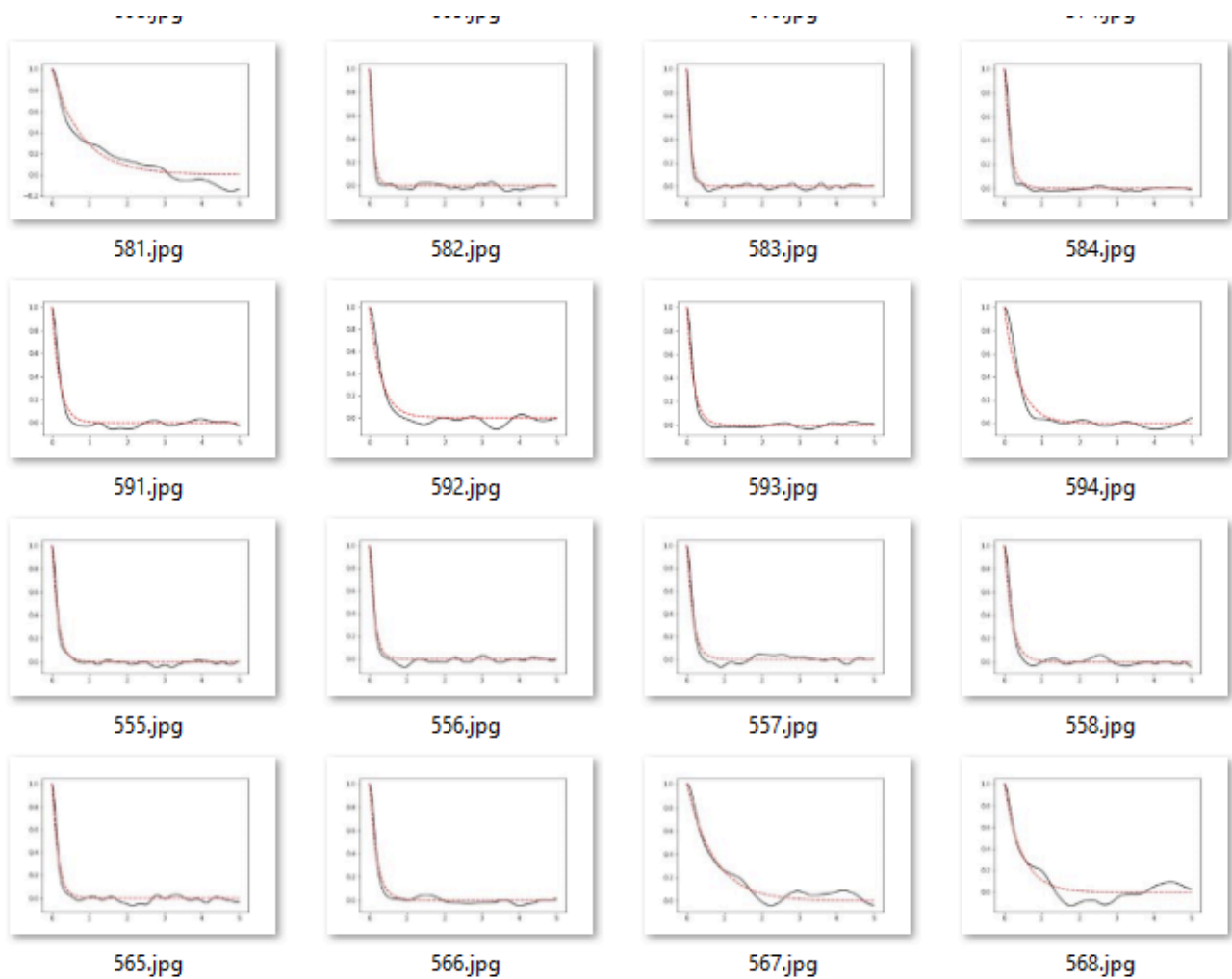


Correlation time analysis using `smoothn`

Using `smoothn`, most noisy VACF curves can be smoothed adaptively. The 01172022 data are shown below as an example.



The curves are fitted with exponential decay to obtain the correlation time τ .



The fitting curves are saved for future quality check in a .zip archived stored on Google Drive.

› Zhengyang Liu › Google Drive › Research projects › DE › Data ›

Name	Date modified	Type	Size
Structured_logs	3/23/2022 9:50 AM	File folder	
unstructured_logs	3/23/2022 9:50 AM	File folder	
DE Size Control.gsheet	7/15/2021 12:23 PM	Google Sheets	1 KB
VACF-fitting-0-610-piv_drop_03242022.zip	3/24/2022 11:56 AM	Compressed (zipp...	6,903 KB

We hypothesized that the correlation time is correlated with the bacterial activity. Below I plot correlation time against mean velocity to visualize this correlation.

