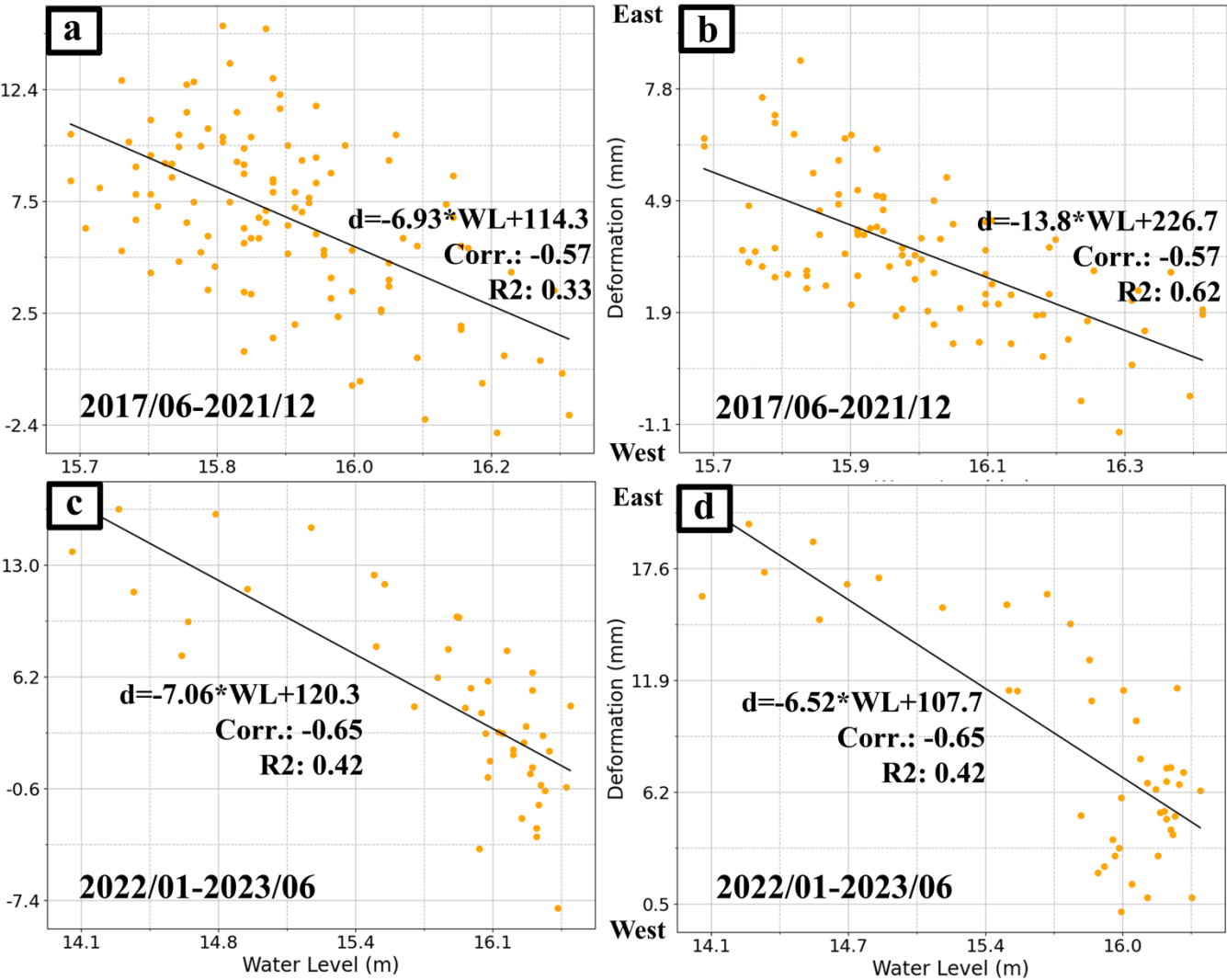
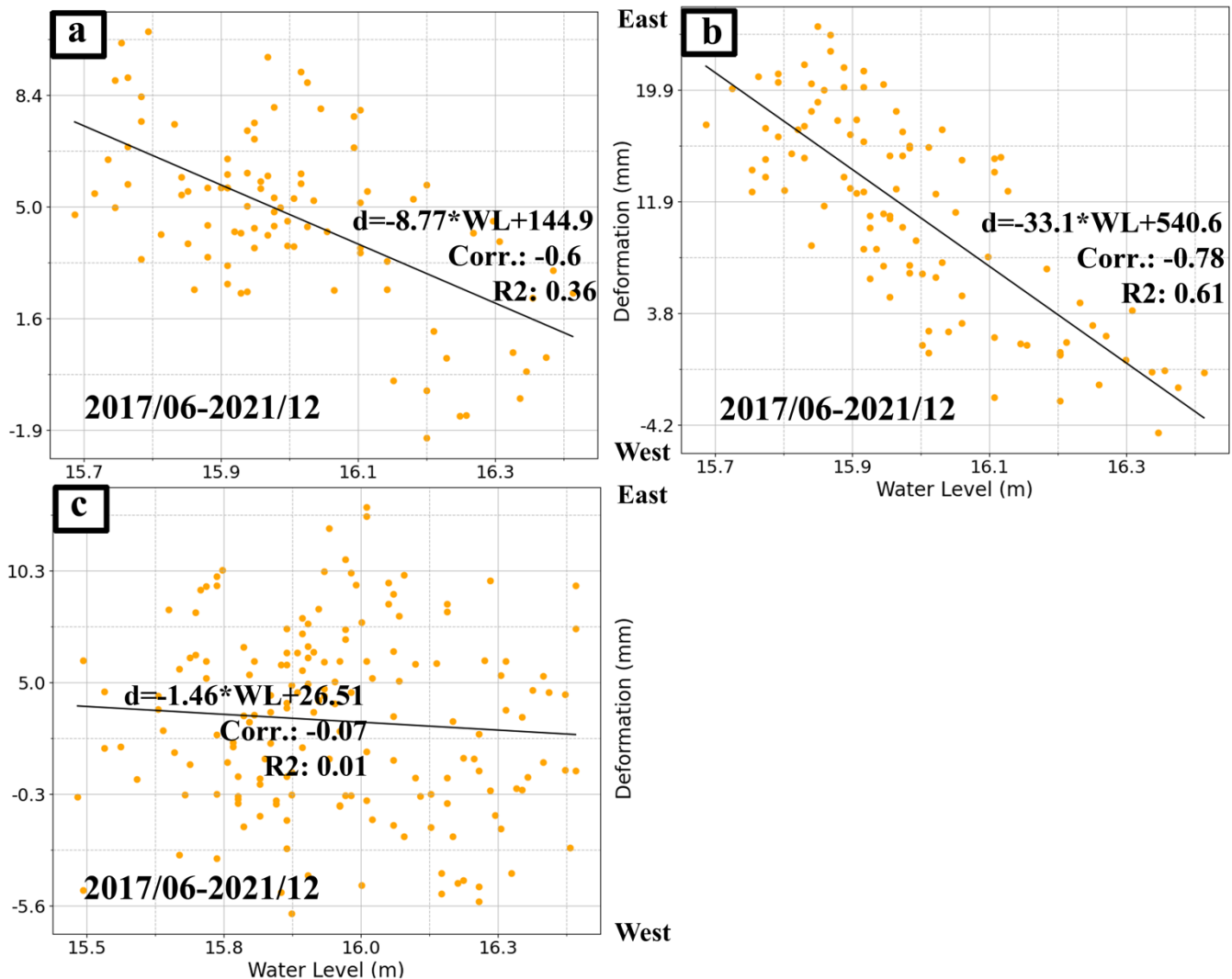


Supplementary materials:



Supplementary Figure 1: Scatter plots of horizontal deformation of points located on the bridge against water level. a) and b) are the scatter plots from June 2017 to December 2021 for polygons 2 and 4, respectively. c) and d) are the scatterplots between June 2022 and June 2023 for polygons 2 and 4, respectively. Positive values of deformation points to the eastward deformation.



Supplementary Figure 2: Scatter plots depicting horizontal deformation relative to water level for points located on the bridge between polygons. (a) Scatter plot covering the period from June 2017 to December 2021 for points between polygons 1 and 2. (b) and (c) represent scatter plots for the same time frame, showing points between polygons 3 and 4, and between polygon 2 and polygon 3, respectively. Positive deformation values indicate eastward deformation.