

In the last decade galaxy clusters have proved to be key cosmological probes. At this respect the understanding of systematic effects in the measurement of their mass is critical. In this work we present a study on the hydrostatic mass of galaxy clusters within the NIKA2 Sunyaev Zel'dovich Large Program from a joint analysis of the thermal SZ (tSZ) effect at millimeter wavelengths with the NIKA2 camera and in X-ray with XMM-Newton satellite. We investigate the impact of NIKA2 data reduction filtering and pressure modeling on the cluster mass estimate. We illustrate these systematic effects with a multi-probe analysis of the well known galaxy cluster CL J1226.9+3332, which is a massive and high redshift cluster that has already been observed at several wavelengths. In addition, using the Cluster Lensing And Supernova survey with Hubble (CLASH) observations we obtain estimates of the lensing masses for a common sample with the NIKA2 Sunyaev Zel'dovich Large Program. From this we are able to compare the different estimates and compute the hydrostatic-to-lensing cluster mass bias. This is complemented by studies on cosmological simulations, which help us to understand the relation between the hydrostatic-to-lensing and the hydrostatic-to-total mass bias.