Nonlinear Fit

My Fit:
$a_2=7.81\pm0.00$
$a_1=-66.69\pm0.01$
$a_0=346.64\pm0.08$
$a_{-1}=-374.13\pm0.16$
$a_{-2}=1290.15\pm0.10$
Scipy:
$a_2=7.81\pm4.32$
$a_1=-66.69\pm74.64$
$a_0=346.64\pm416.32$
$a_{-1}=-374.13\pm861.48$
$a_{-2}=1290.15\pm557.76$
● Signal+Noise