USEFUL FORMULAS

$$R_{XY} = \frac{CC_{strain}}{CC_{derr}}$$

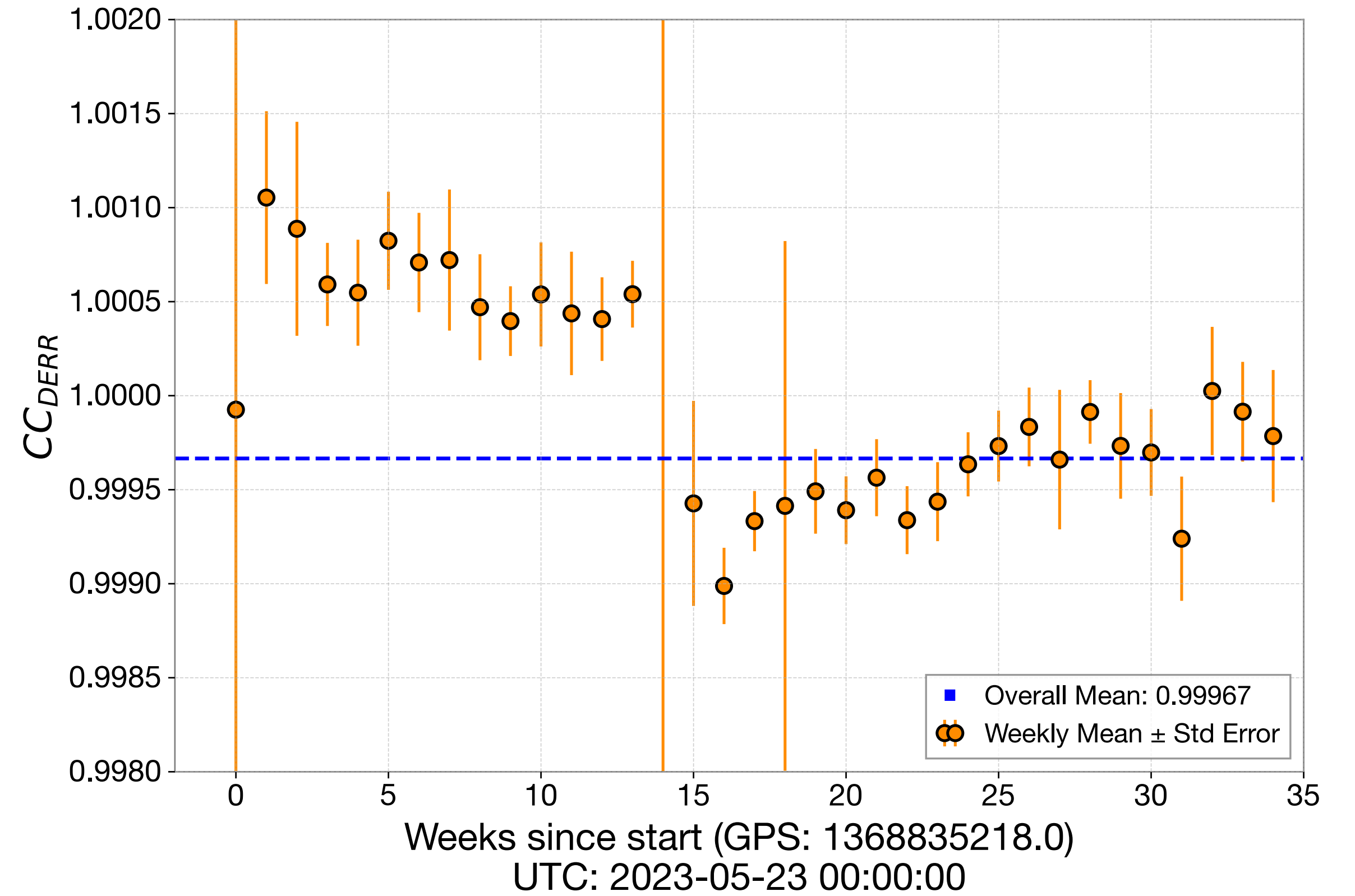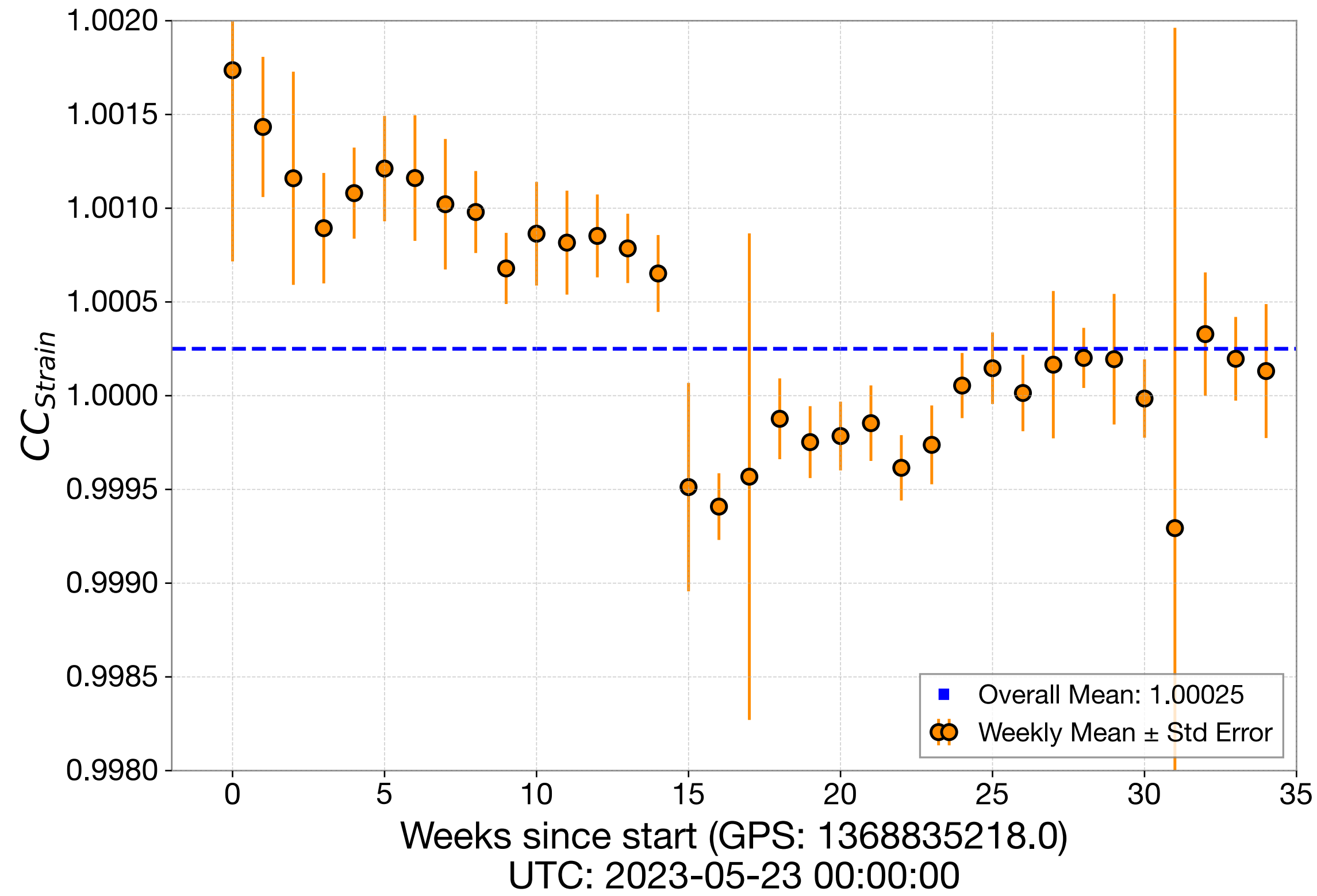$$CC_{strain} = \frac{PcalX(\omega_X)}{PcalY(\omega_Y)} \frac{x(\omega_Y)|_{strain}}{x(\omega_X)|_{strain}} \qquad CC_{D_{err}} = \frac{PcalX(\omega_X)}{PcalY(\omega_Y)} \frac{D_{err}(\omega_Y)}{D_{err}(\omega_X)}$$
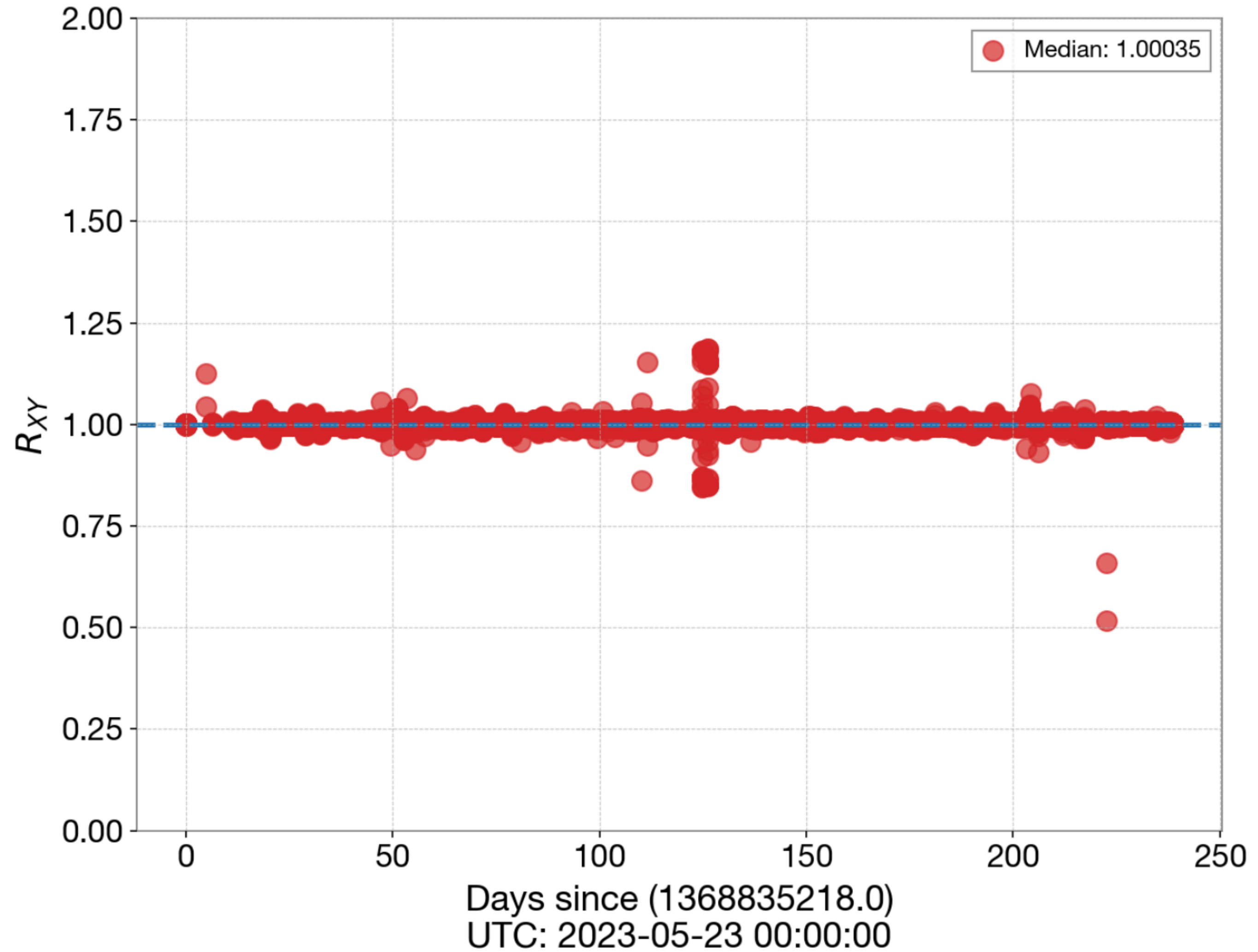
$$CC_{strain} = \frac{\chi_{XY}}{C_X C_Y} \qquad CC_{D_{err}} = \frac{\chi_{XY}}{C_X C_Y} \frac{1}{R_{XY}}$$

$$\frac{CC_{strain}}{CC_{D_{err}}} = \frac{\frac{\chi_{XY}}{C_X C_Y}}{\frac{\chi_{XY}}{C_X C_Y R_{XY}}} = \frac{\chi_{XY}}{C_X C_Y} \frac{C_X C_Y R_{XY}}{\chi_{XY}} = R_{XY}$$
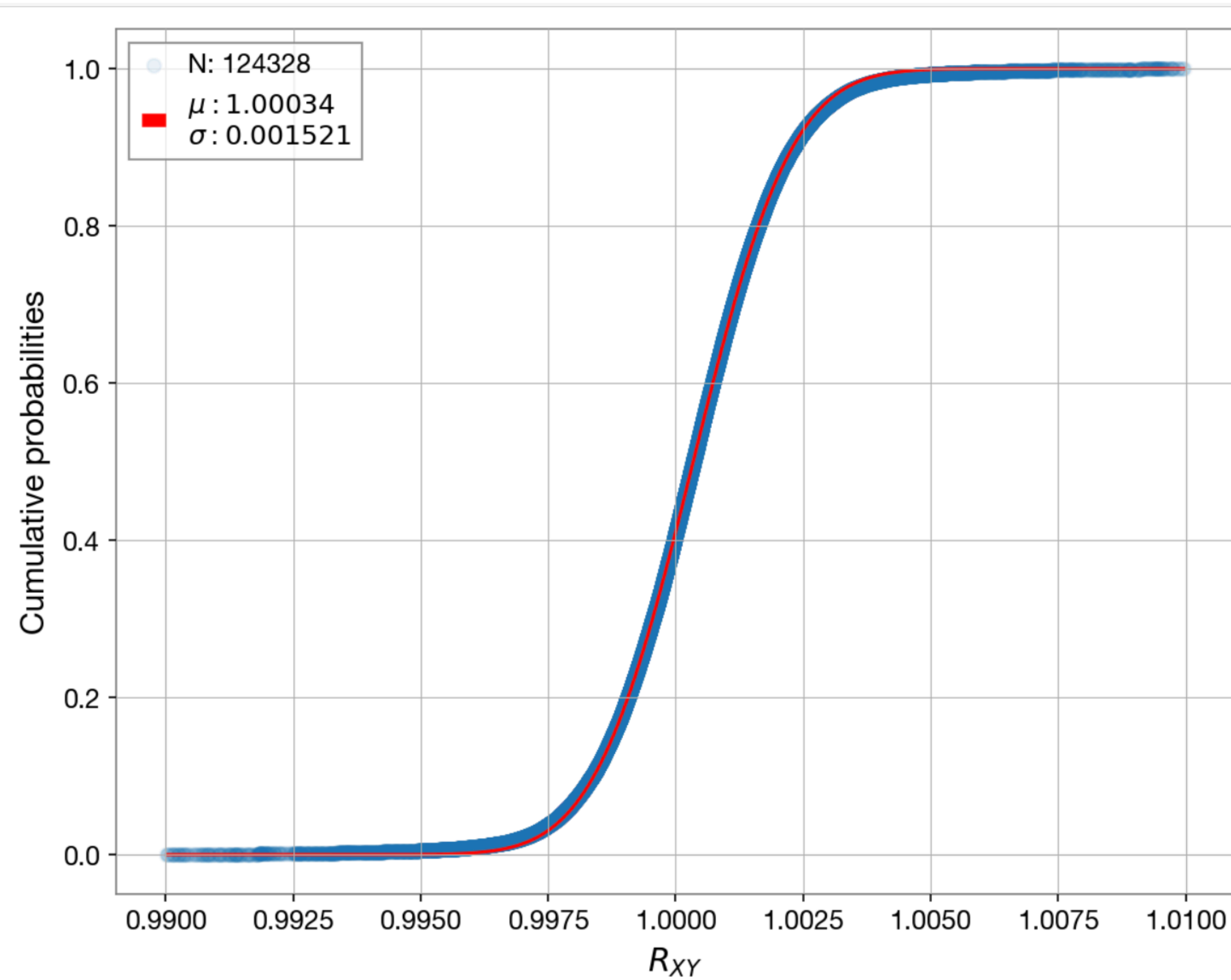
Weekly Trend Plots of the first 35 weeks of data of CCstrain and CCderr

Rxy in that time period.

Fitted ECDF

N: 124328
μ : 1.00034
σ : 0.001521

Approximately 99% of data follows a gaussian distribution

Histogram for Reference