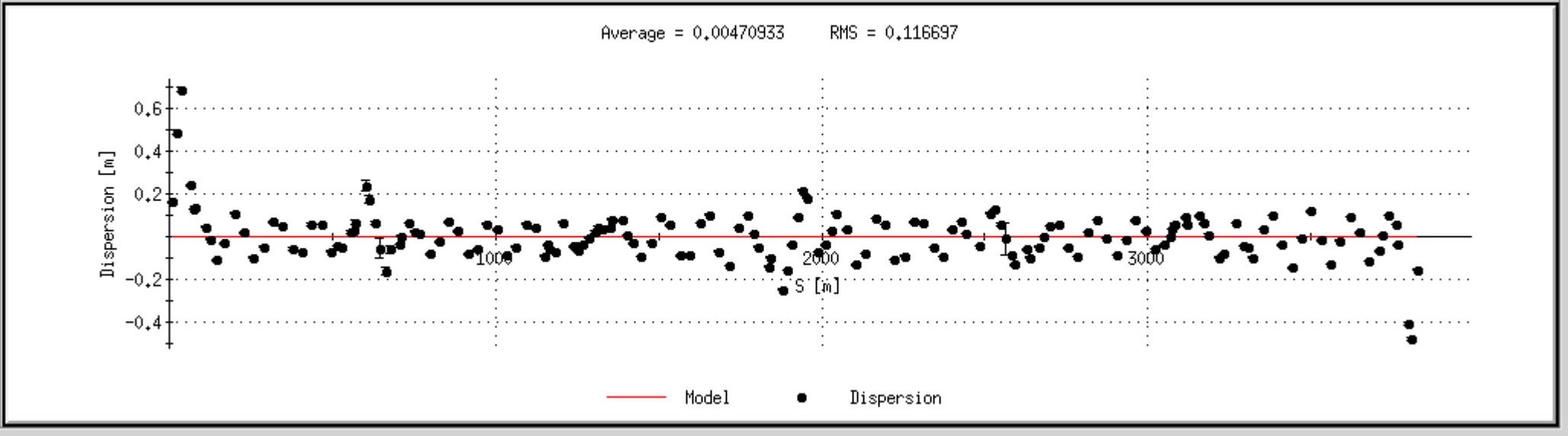


Simultaneous global coupling and vertical dispersion correction

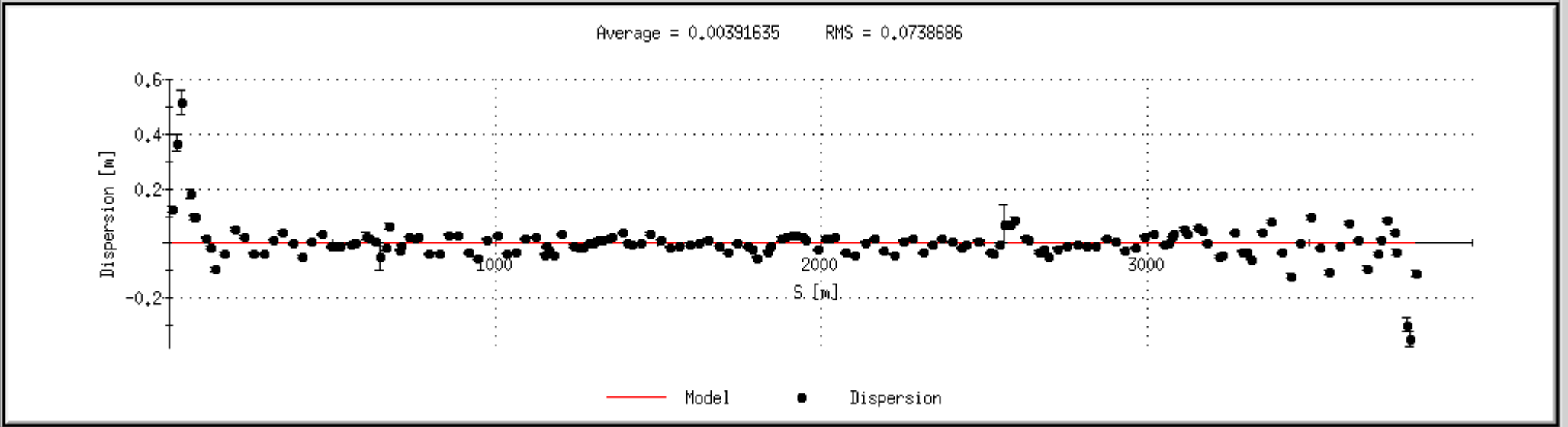
C. Liu, Y. Luo, M. Minty
June 1st, 2012

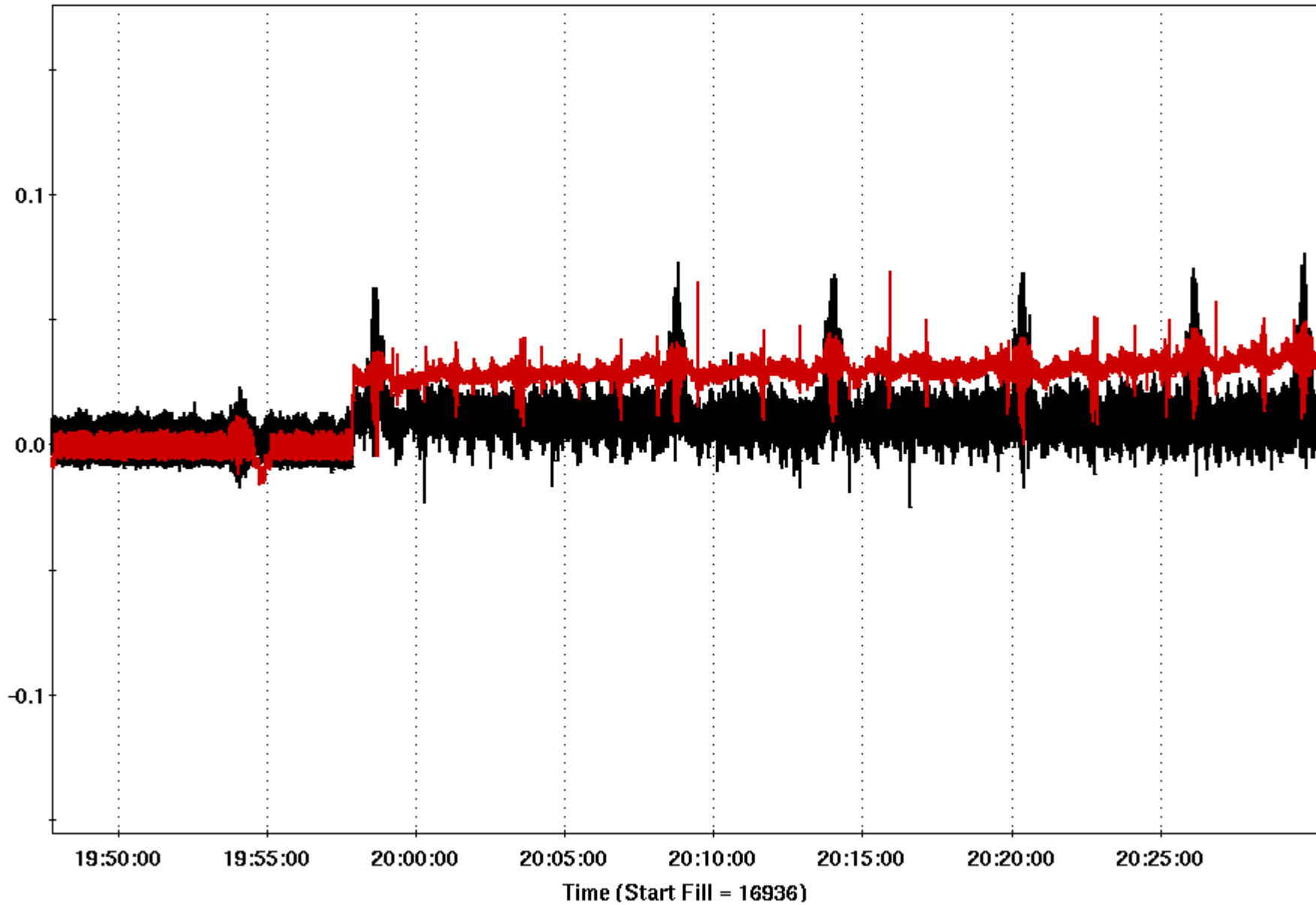
Blue ring V dispersion before and after simultaneous correction:

Y - Dispersion



Y - Dispersion



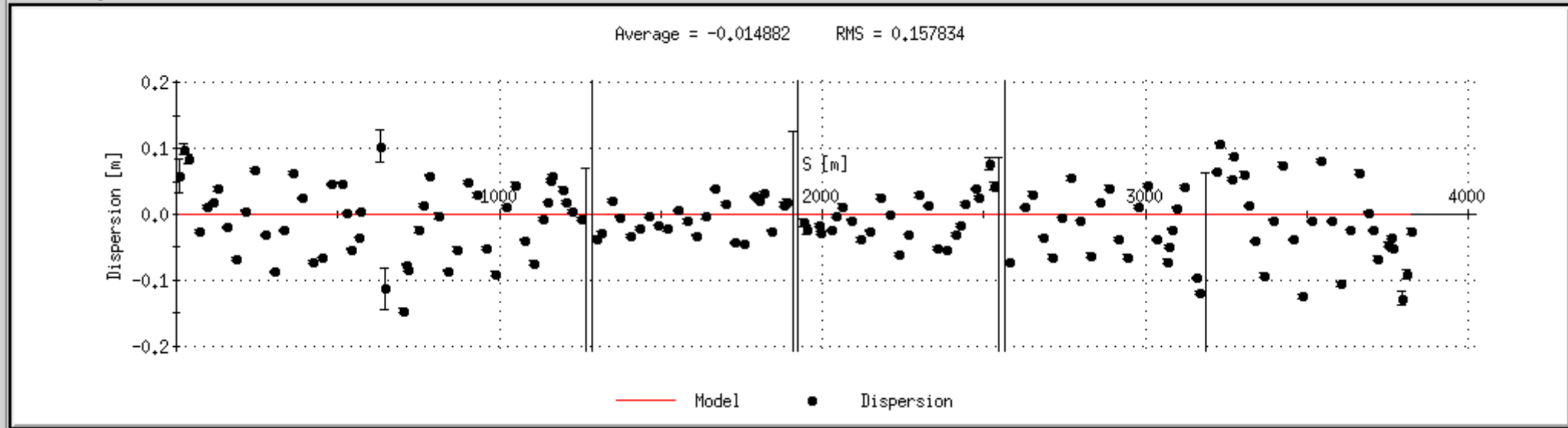


— qLoopCoupling2,bf2;deltaStrengthBuffM[.] (C)

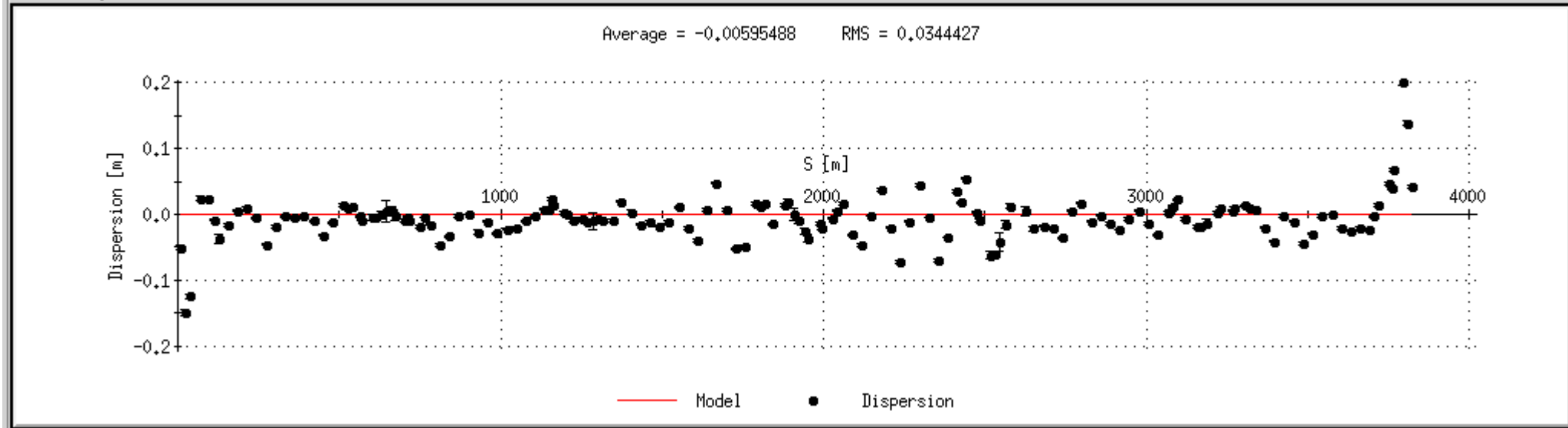
— qLoopCoupling2,bf13;deltaStrengthBuffM[.] (C)

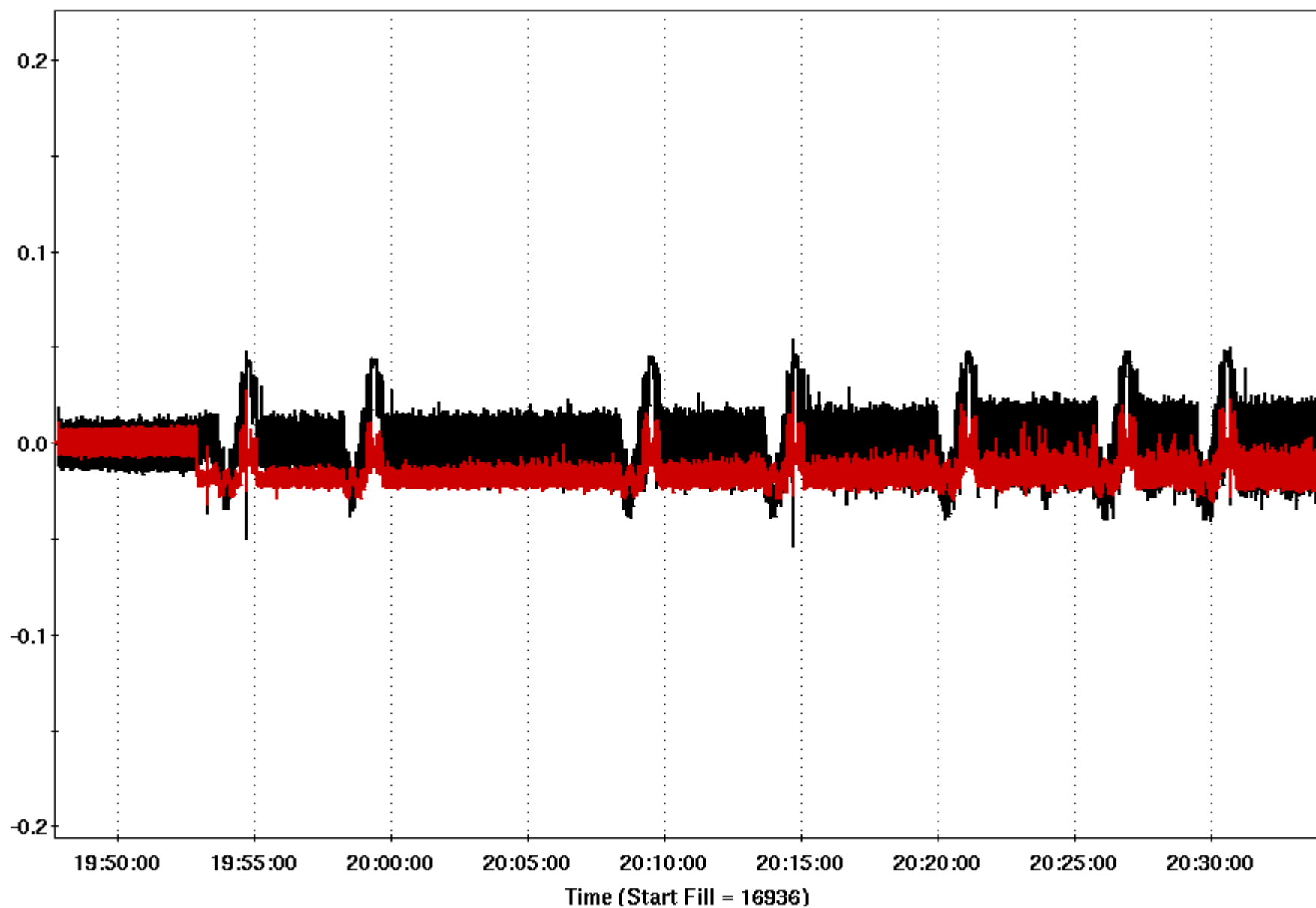
Yellow ring V dispersion before and after simultaneous correction:

Y - Dispersion



Y - Dispersion

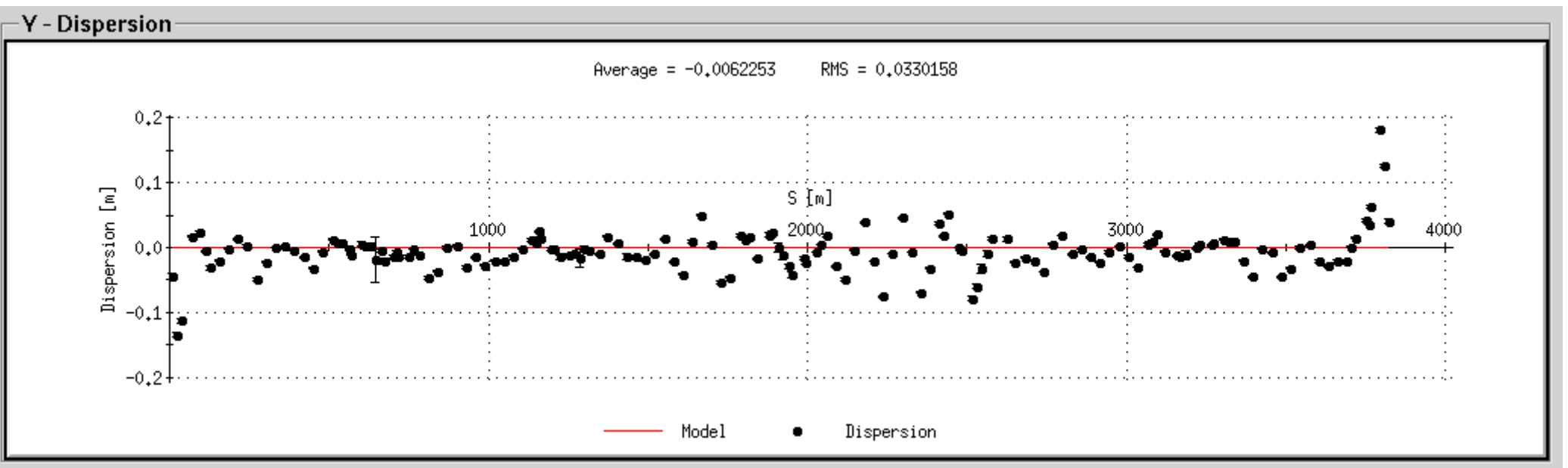




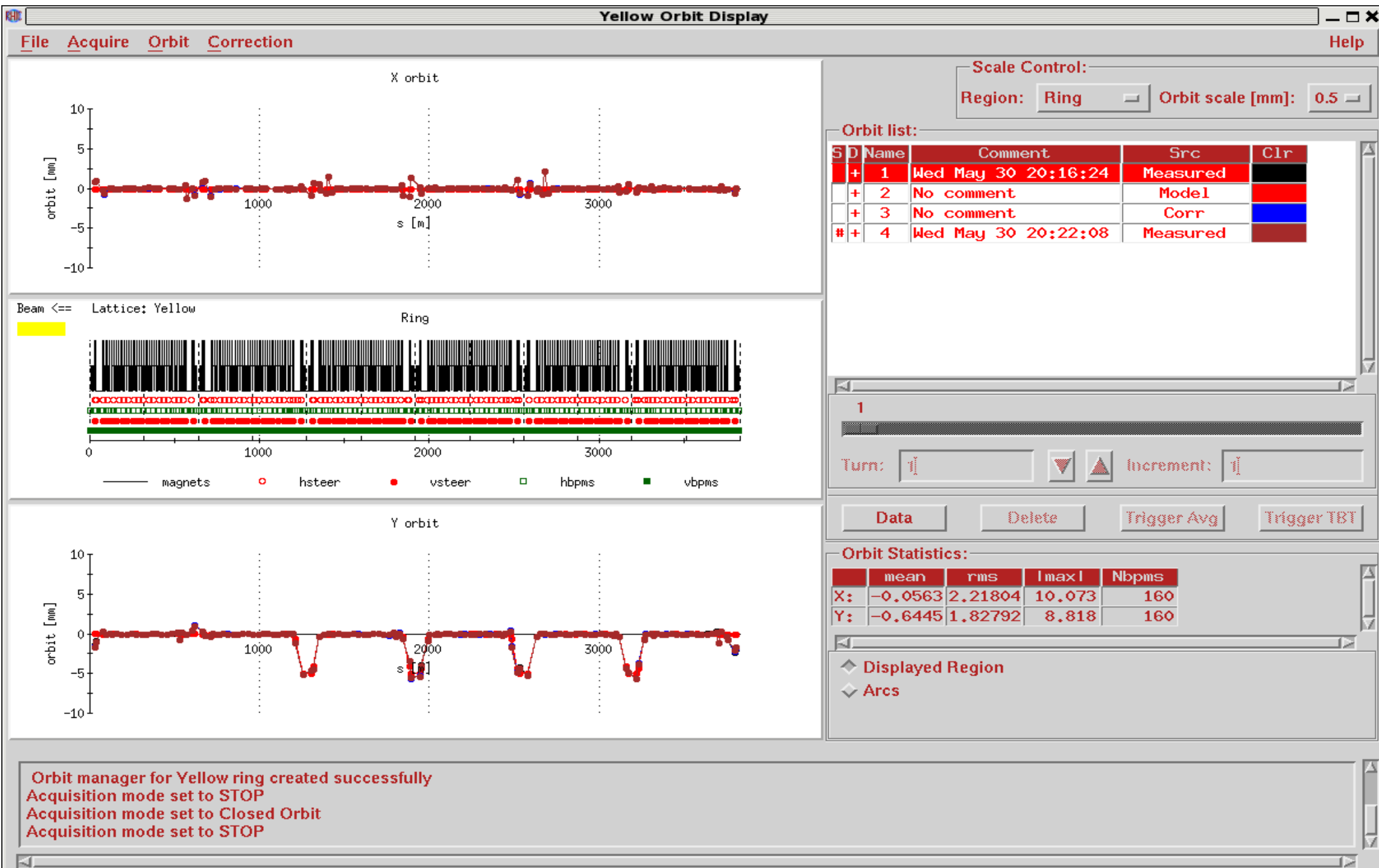
— qLoopCoupling2.yf2:deltaStrengthBuffM[.] (C)

— qLoopCoupling2.yf13:deltaStrengthBuffM[.] (C)

Yellow V dispersion after dispersion-free steering:



Yellow orbits before and after DFS (no appreciable changes):



Summary

1. Simultaneous global coupling and vertical dispersion correction works for both rings at injection and store
2. Dispersion-free steering worked for yellow at store, further optimization of weighting factor is needed for blue