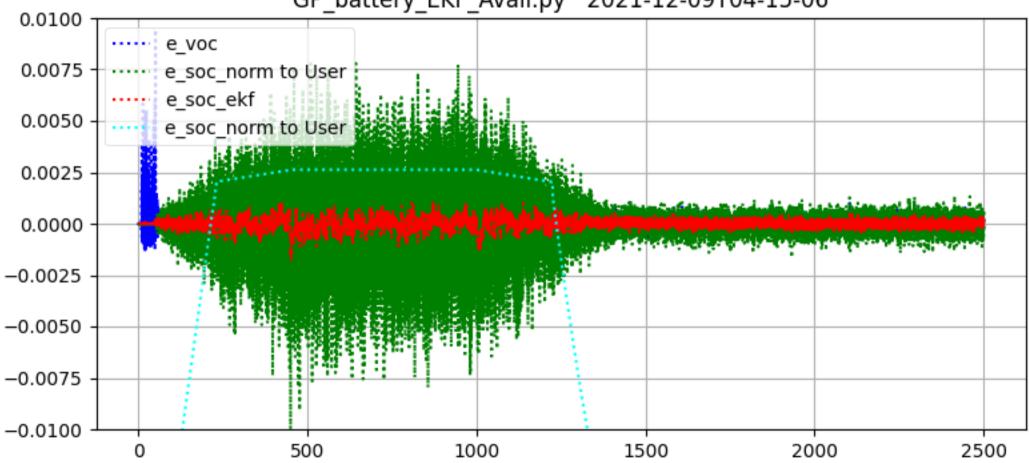
GP battery EKF Avail.py 2021-12-09T04-15-06 1.00 current demand, A SOC 25 0.98 SOC norm 0 I Rct -250.96 I C dif :IsRodif 500 1000 1500 500 1000 2000 2500 500 ٧b Pow in 14 Vc 0 · Vd 12 Voc -500 2000 500 1000 1500 2500 500 1000 1500 2000 2500 14.25 0.05 Vbc_dot voc vs soc norm Vcd_dot 14.00 0.00 -0.0513.75 500 1000 1500 2000 2500 0.96 0.97 0.98 0.99 1.00 0

GP_battery_EKF_Avail.py 2021-12-09T04-15-06 1.00 25 0 SOC norm ib 0.95 SOC norm ekf i batt -25actual voc 500 1000 1500 500 1000 2000 2500 16 voc dyn meas 1.00 voc filtered state SOC norm 14 post soc norm filtered 0.95 x soc norm filtered v batt 12 500 1500 1000 1500 2000 1000 2000 2500 0.01 0.010 e soc ekf e voc 0.00 0.005 e soc norm to User K (belief state / belief meas) 0.000 -0.01500 1000 1500 2000 2500 500 1000 1500 2000 2500

GP_battery_EKF_Avail.py 2021-12-09T04-15-06 1.00 -14.25 0.0 0.98 14.00 hx ekf x ekf _{13.75} ····· z ekf -0.1 ····· v ekf 0.96 1e-5 1000 1000 2000 2000 1000 2000 1.05 2 ····· Fx ekf 40 1.00 20 H ekf P ekf 0.95 0 0 1e−7 1000 2000 1000 2000 1000 2000 0 0,010 + Bu ekf 3.8 0.005 K ekf 3.6 0.000 0 1000 2000 0 1000 2000

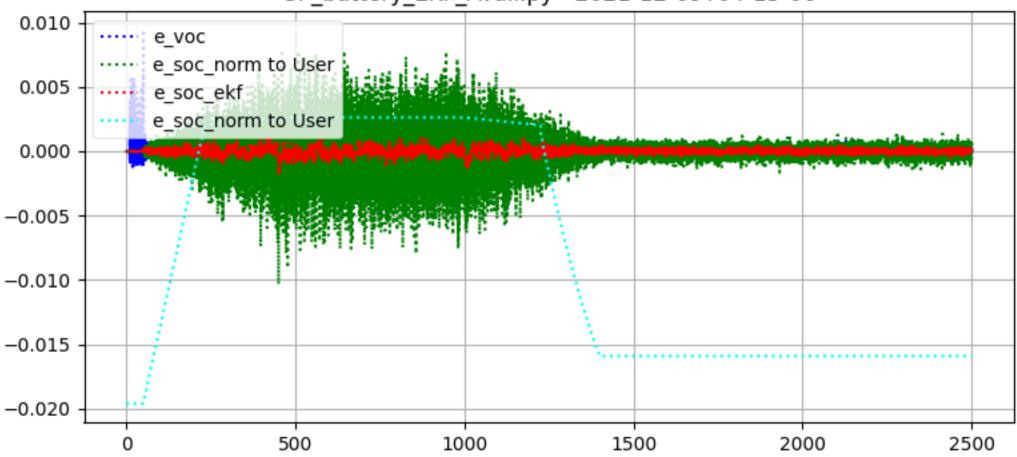
GP_battery_EKF_Avail.py 2021-12-09T04-15-06 1.00 14.3 14.2 0.99 14.1 0.98 14.0 0.97 13.9 0.96 the see we 13.8 0.95 voc_dyn 13.7 SOC vbat_solved soc solved 13.6 0.94 0 500 1000 1500 2000 2500 0 500 1000 1500 2000 2500

GP_battery_EKF_Avail.py 2021-12-09T04-15-06



GP_battery_EKF_Avail.py 2021-12-09T04-15-06 1.000 0.995 0.990 0.985 0.980 0.975 ····· soc_avail ····· soc_avail_ekf 1500 2000 500 1000 2500

GP_battery_EKF_Avail.py 2021-12-09T04-15-06



Test_plot.py 2021-12-06T18-11-11 600 10000 process1.var1 process1.var2 process2.var1 process2.var2 8000 400 6000 4000 200 2000 0 0 -2.5 7.5 5.0 7.5 5.0 0.0 2.5 10.0 0.0 10.0 1.0 process1.var3 process2.var3 0.8 0.6 0.4 -0.2

0.0

0.0

2.5

5.0

7.5

10.0

Test₁p₈ot.py 2021-12-08T05-22-29 60000 proc1.var1 proc1.var2 proc2.var1 proc2.var2 1.0 40000 0.5 20000 0.0 0 250 250 1000 500 750 500 750 1000 1.0 proc1.var3 0.8 proc2.var3 0.6 0.4 -0.2 0.0

0

250

500

750

1000