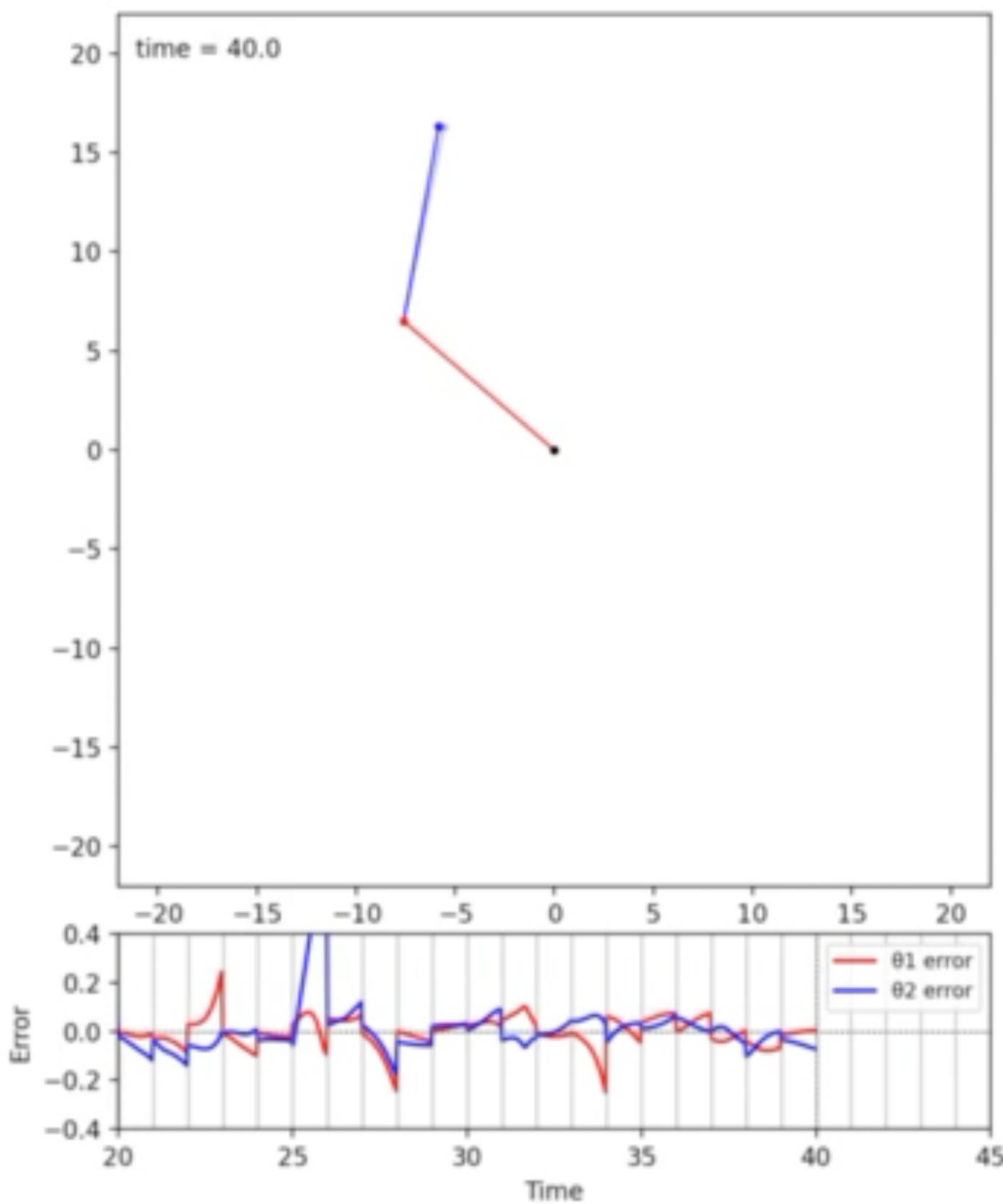


experience

Observation Analysis (每次觀測值的分析)

Experiment 1 Observation is Analysis

Forecast Analysis Cycle Period: 1



θ_1 分析標準差 : 0.036 (rad)

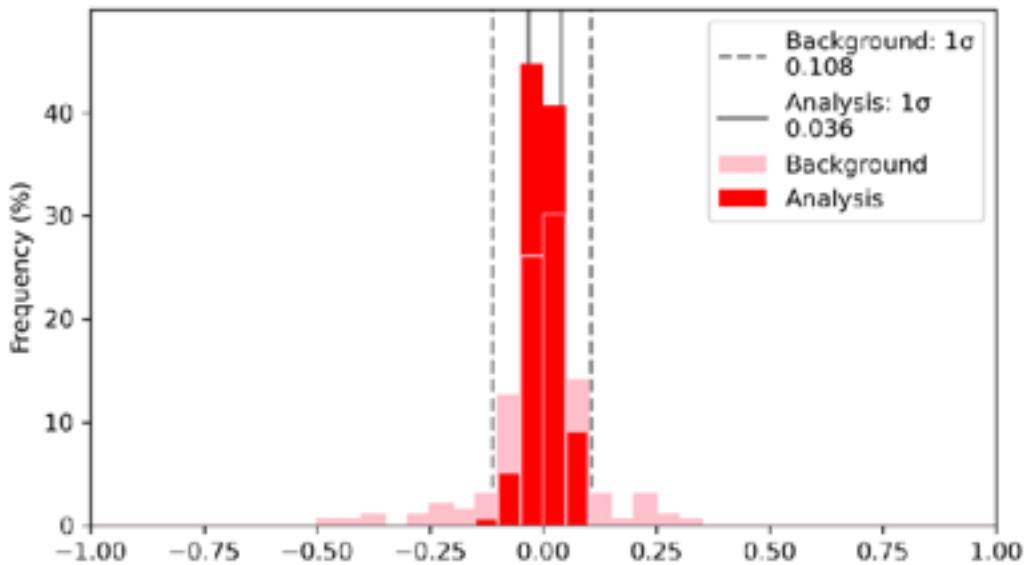
$\dot{\theta}_1$ 分析標準差 : 0.048 (rad/s)

θ_2 分析標準差 : 0.036 (rad)

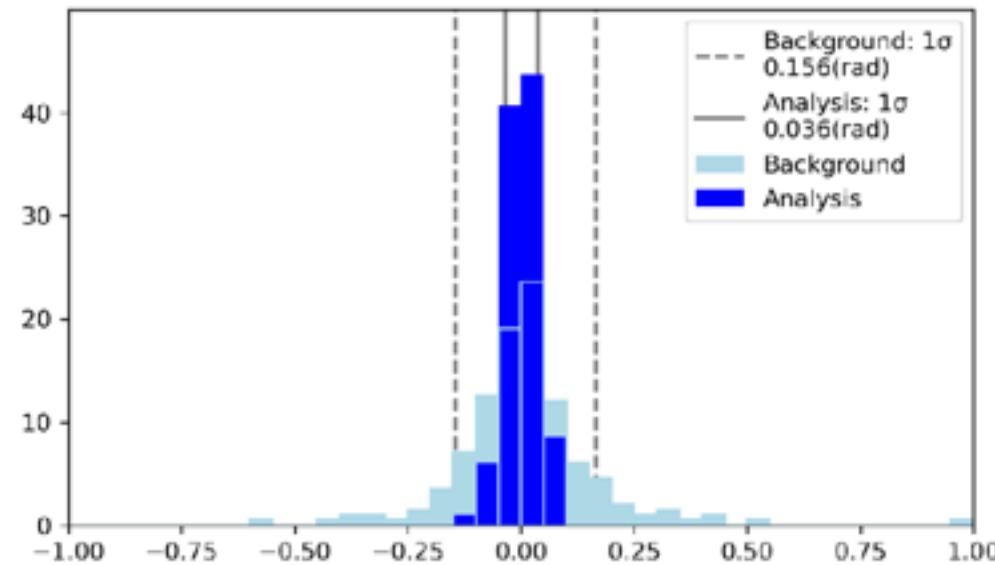
$\dot{\theta}_2$ 分析標準差 : 0.048 (rad)

Experiment 1: Analysis vs Background

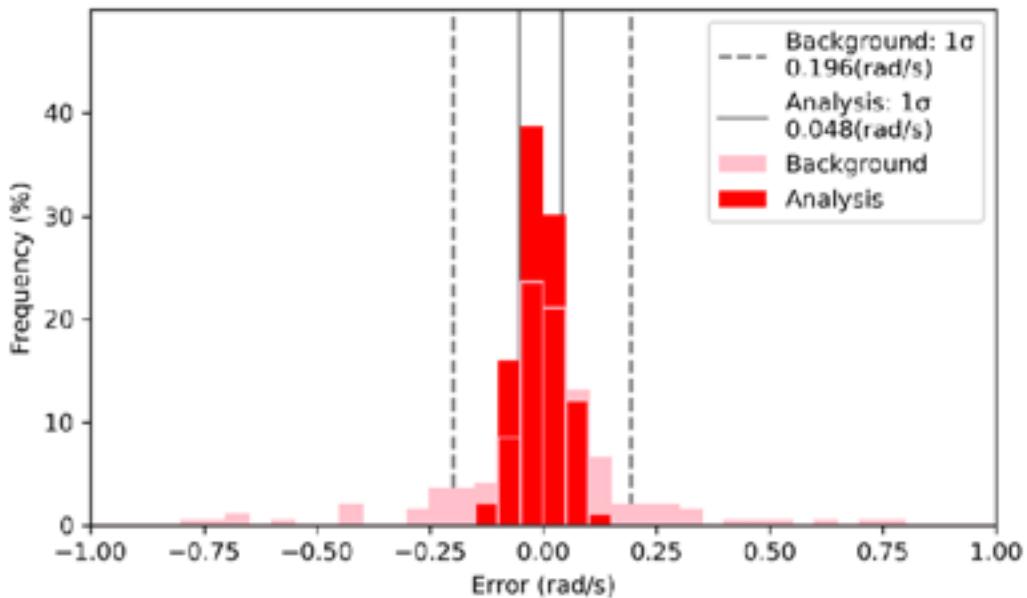
Theta1 Error



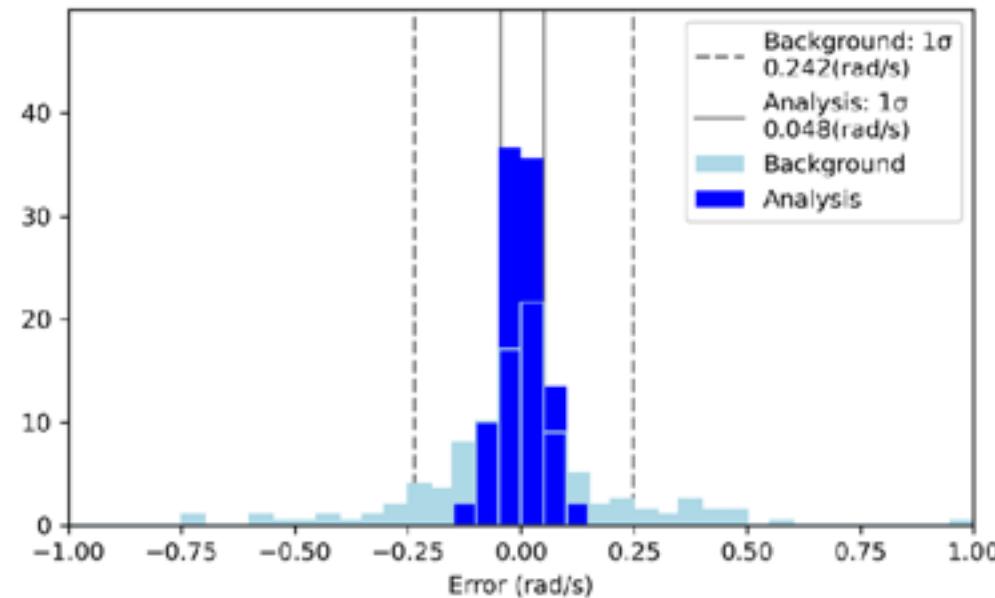
Theta2 Error



Thetadot Error



Theta2dot Error

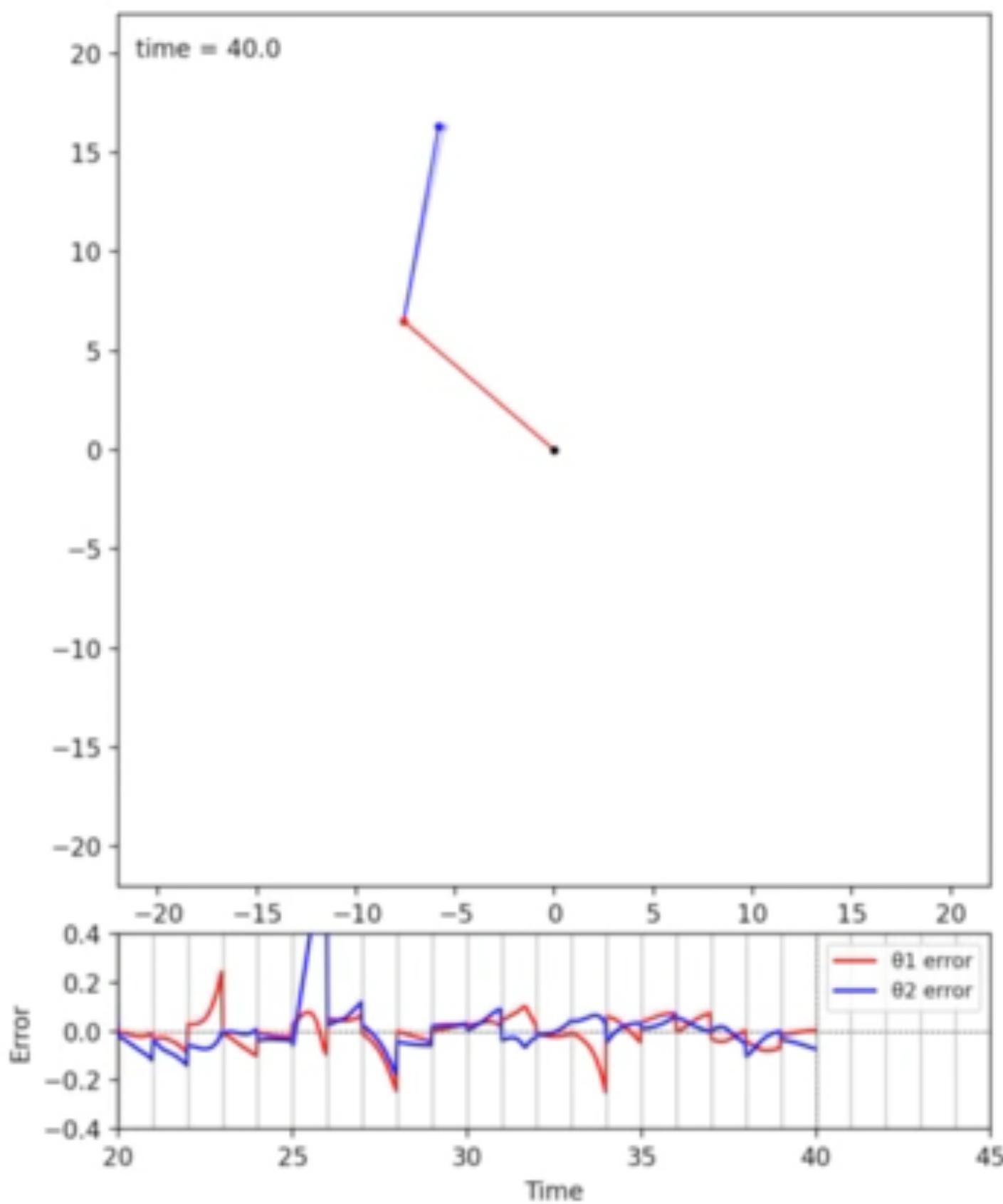


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Experiment 1 Observation is Analysis

Forecast Analysis Cycle Period: 1

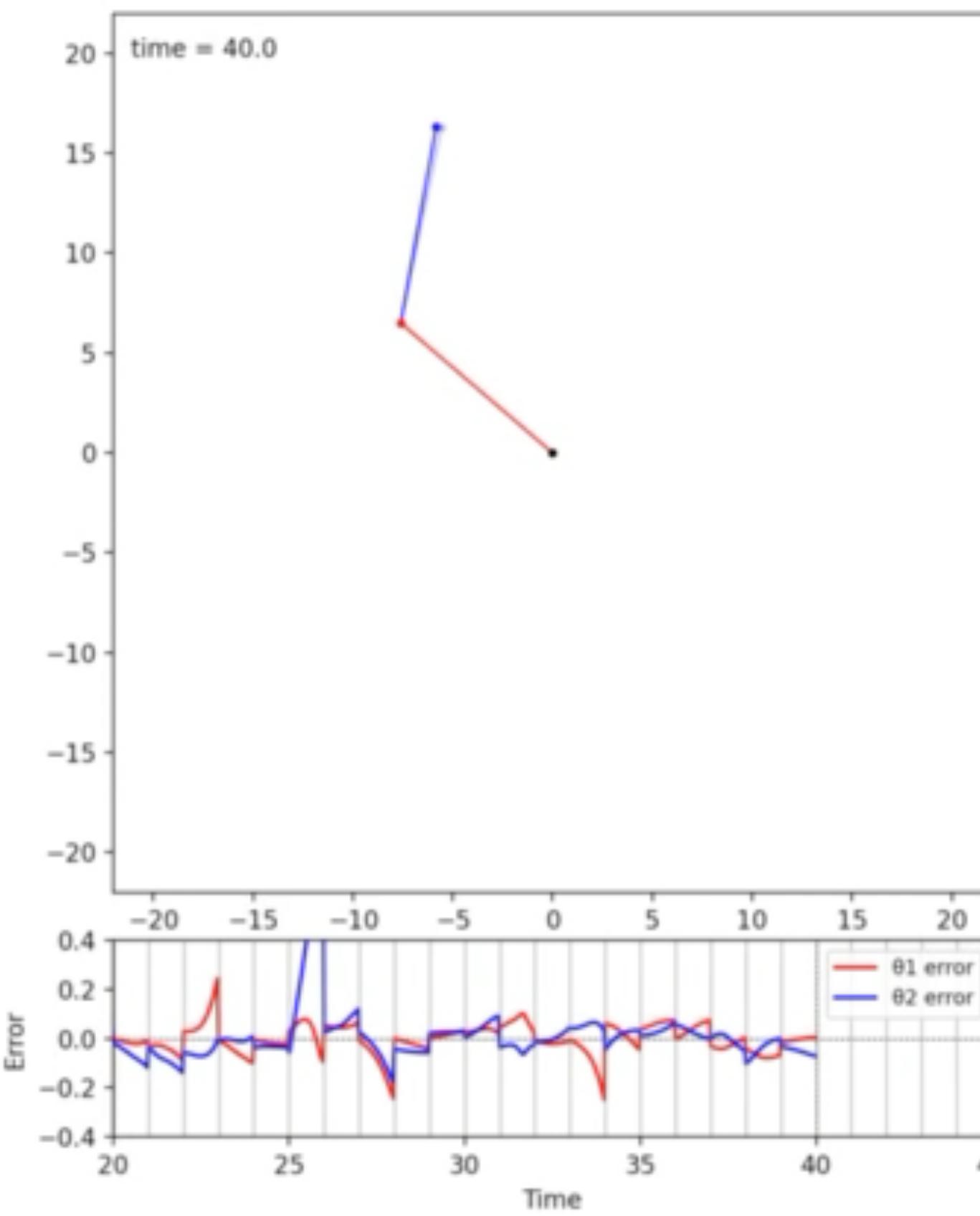


Experiment

Experiment 1: Observation is Analysis (每1秒分析一次，分析值即觀測值)

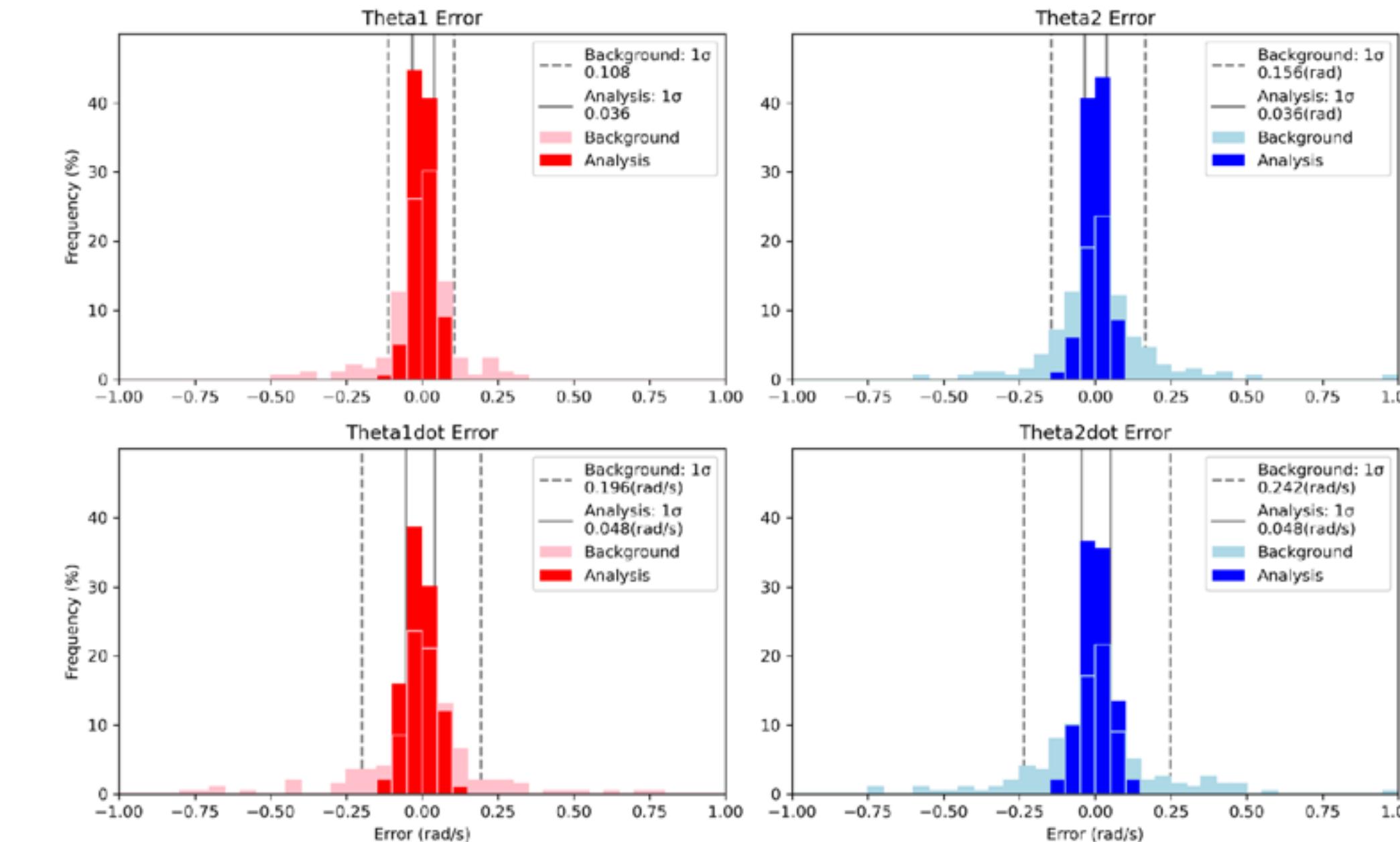
Experiment 1 Observation is Analysis

Forecast Analysis Cycle Period: 1



分析(即觀測)誤差相較於背景誤差改變了多少？

Experiment 1: Analysis vs Background



觀測即分析時

θ_1 分析標準差 : 0.036 (rad)
 $\dot{\theta}_1$ 分析標準差 : 0.048 (rad/s)

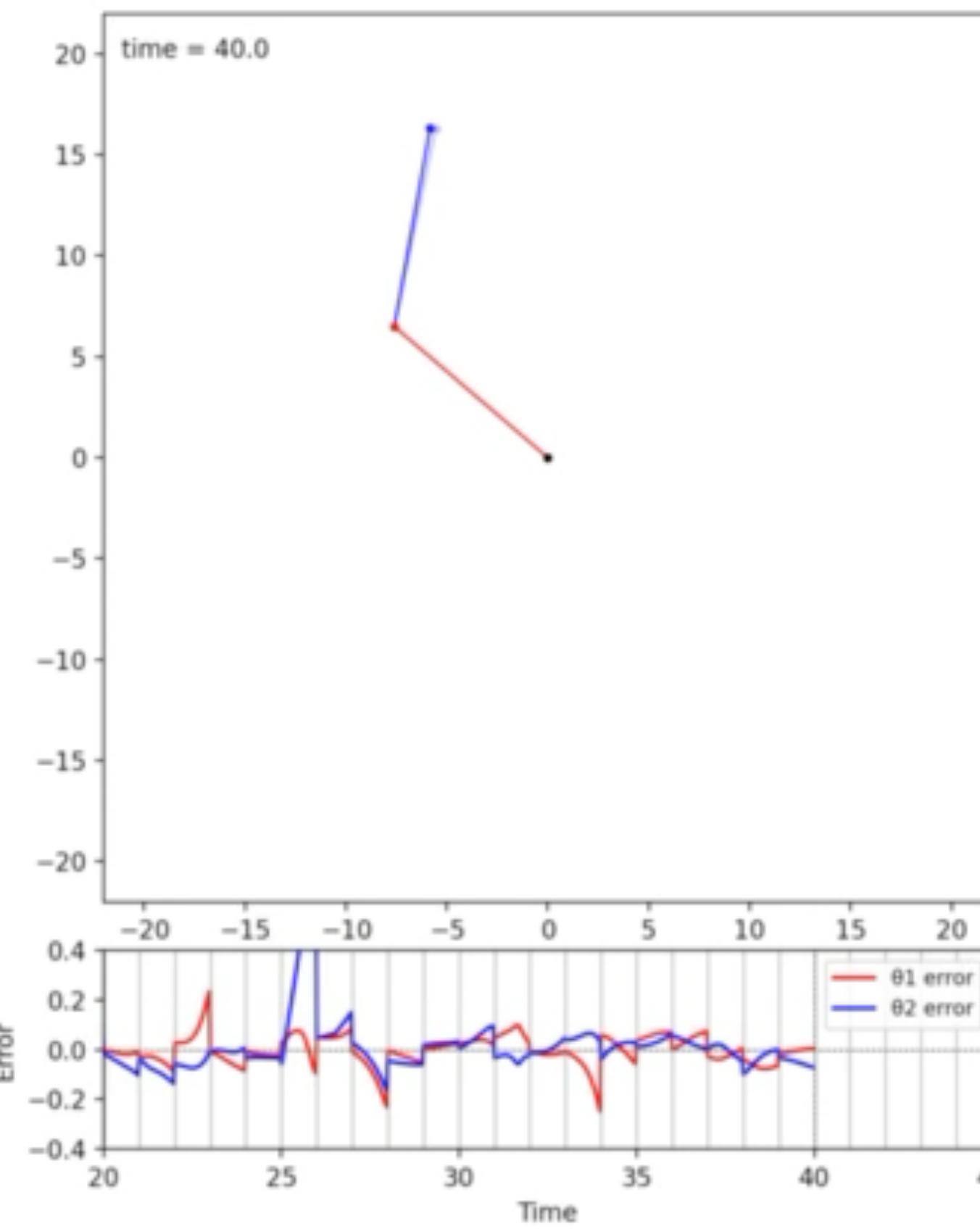
θ_2 分析標準差 : 0.036 (rad)
 $\dot{\theta}_2$ 分析標準差 : 0.048 (rad)

Experiment

Experiment 2: Optimal Interpolation (每1秒分析一次，最佳內插法)

Experiment 2 Optimal Interpolation

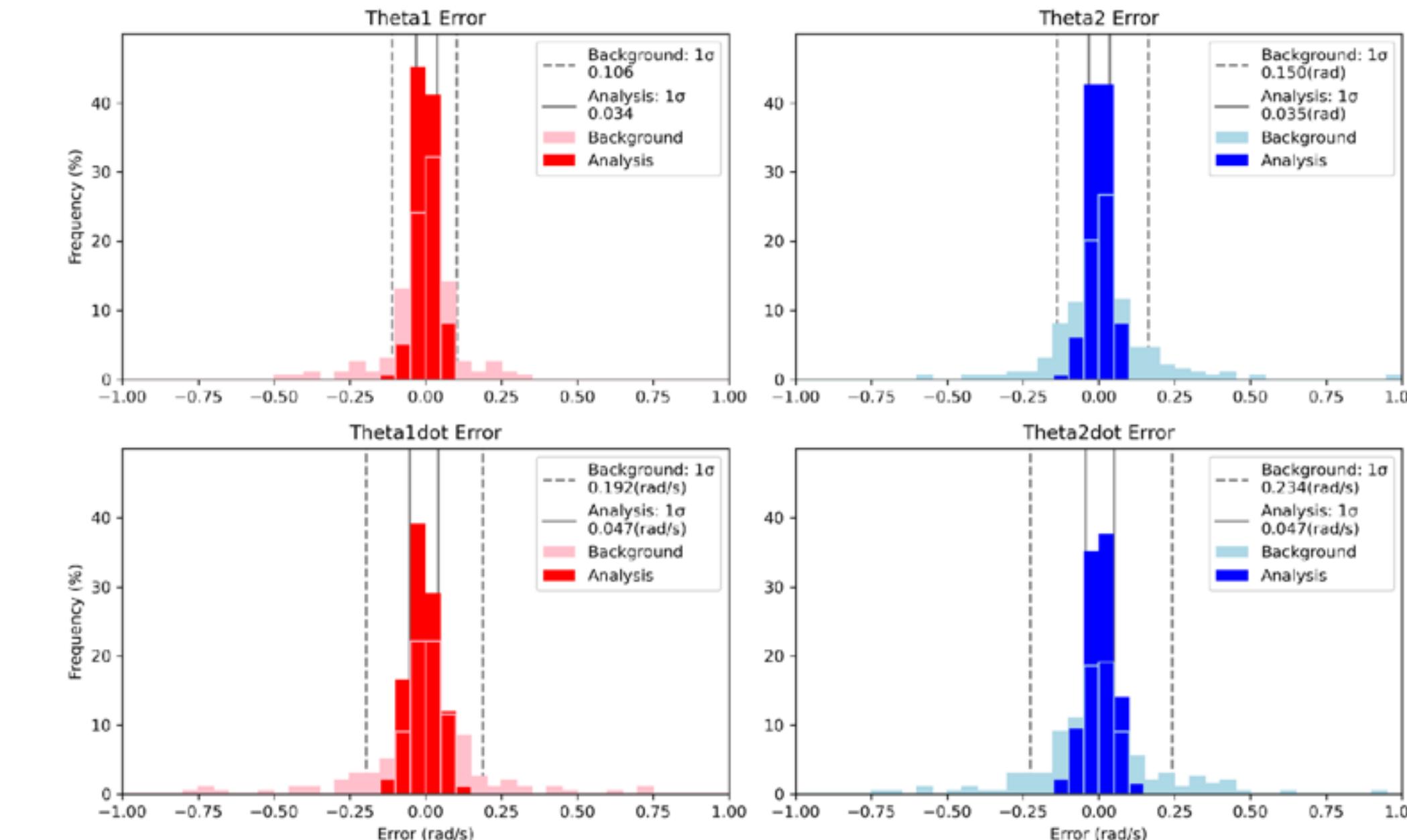
Forecast Analysis Cycle Period: 1



註：**B**的計算方法為，**B=R**，後經不斷與真值比較並迭代出收斂的**B**

分析誤差相較於背景誤差改變了多少？

Experiment 2: Analysis vs Background



此實驗相較於觀測即分析時

θ_1 分析標準差：0.036
 $\dot{\theta}_1$ 分析標準差：0.048

0.034 (rad)
0.047 (rad/s)

θ_2 分析標準差：0.036
 $\dot{\theta}_2$ 分析標準差：0.048

0.035 (rad)
0.047 (rad/s)