CIFER-only Good Feedback comparision

Magnitude (dB)

Phase (deg)

Coherence

Frequency (rad/sec)
Time history effect of hysteresis

- No hysteresis
- With hysteresis
Time history effect of deadband

- No deadband
- With deadband
Time history effect of sat

No sat
With sat
TF w/ linear actuator and rate limit and good feedback open loop

Error Bounds

Magnitude (dB)

Phase (deg)

Coherence

Frequency (rad/sec)

Coherence

Frequency (Rad/sec)
Time history effect of rate limit

- No rate limit
- With rate limit
TF w/ linear actuator and look-up table open loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
Time history effect of look-up table

- No look-up table
- With look-up table
Time history effect of delay

- No delay
- With delay
TF w/ linear actuator and good feedback broken loop

Magnitude (dB)

Error Bounds

Delta Magnitude

Phase (deg)

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and hysteresis and good feedback broken loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
Time history effect of hysteresis

- No hysteresis
- With hysteresis
TF w/ linear actuator and deadband and good feedback closed loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and deadband and good feedback broken loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
Time history effect of deadband

- No deadband
- With deadband
Time history effect of sat

- No sat
- With sat
TF w/ linear actuator and rate limit and good feedback closed loop

Magnitude (dB)

CIFER
LINMOD
Baseline

Error Bounds

Delta Magnitude

Delta Phase

Frequency (rad/sec)

Coherence

Frequency (Rad/sec)

Coherence
TF w/ linear actuator and rate limit and good feedback broken loop

Magnitude (dB)

Error Bounds

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Coherence

Frequency (Rad/sec)
TF w/ linear actuator and look-up table and good feedback broken loop

Magnitude (dB)

Error Bounds

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
Time history effect of look-up table

- No look-up table
- With look-up table
TF w/ linear actuator and memory block and good feedback closed loop

Magnitude (dB)

-40
-30
-20
-10
0
10
20

CIFER
LINMOD
Baseline

Error Bounds

Delta Magnitude

-10
-5
0
5
10

Phase (deg)

-270
-180
-90
0
90

Delta Phase

-90
0
90

Coherence

0.2
0.4
0.6
0.8
1

Frequency (rad/sec)

10^0
10^1

Coherence

0.2
0.4
0.6
0.8
1

Frequency (Rad/sec)

10^0
10^1
Time history effect of memory block

- No memory block
- With memory block
TF w/ linear actuator and delay and good feedback closed loop

Magnitude (dB)

Error Bounds

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and delay and good feedback broken loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Frequency (rad/sec)

Frequency (Rad/sec)

Coherence
Time history effect of delay

- No delay
- With delay
TF w/ linear actuator and bad feedback broken loop

Error Bounds

CIFER
LINMOD

Delta Magnitude

Delta Phase

Coherence

Magnitude (dB)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and hysteresis and bad feedback broken loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and deadband and bad feedback closed loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
TF w/ linear actuator and deadband and bad feedback broken loop

Magnitude (dB)

Error Bounds

Magnitude

Phase (deg)

Frequency (rad/sec)

Coherence

Frequency (Rad/sec)
Time history effect of deadband

- No deadband
- With deadband
Time history effect of sat

No sat

With sat
TF w/ linear actuator and rate limit and bad feedback broken loop

Error Bounds

Magnitude (dB)

Phase (deg)

Delta Magnitude

Delta Phase

Coherence

Frequency (rad/sec)

Frequency (Rad/sec)
Time history effect of rate limit

No rate limit

With rate limit
TF w/ linear actuator and look-up table and bad feedback closed loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Frequency (rad/sec)

Coherence

Frequency (rad/sec)

Coherence
Time history effect of look-up table

- No look-up table
- With look-up table
TF w/ linear actuator and memory block and bad feedback broken loop

Magnitude (dB)

Error Bounds

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)

Coherence

Frequency (Rad/sec)
TF w/ linear actuator and delay and bad feedback closed loop

Error Bounds

Magnitude (dB)

Delta Magnitude

Phase (deg)

Delta Phase

Coherence

Frequency (rad/sec)