

Figure 1 is a plot showing the control signal Z_i over time i . The x-axis represents time i from 0 to 300. The y-axis represents the control signal Z_i . The plot includes a legend with the following entries:

- $+$ Y_i
- Red circle Z_i Violation
- Black circle Z_i Control
- Dashed line Control Limit
- Dotted line Control Window Boundary

The plot shows a sequence of data points connected by lines. Red circles indicate Z_i Violation, and black circles indicate Z_i Control. A dashed line represents the Control Limit, and a dotted line represents the Control Window Boundary. The plot shows a decreasing trend in the control signal over time, with a significant violation (red circle) around $i=180$.

