

Phase-Aligned Fuel Injection in a Reduced Burn Propagation Model

Martin Chatwood*

ORCID: <https://orcid.org/0009-0009-0982-2290>

Chatwood Labs Ltd, United Kingdom

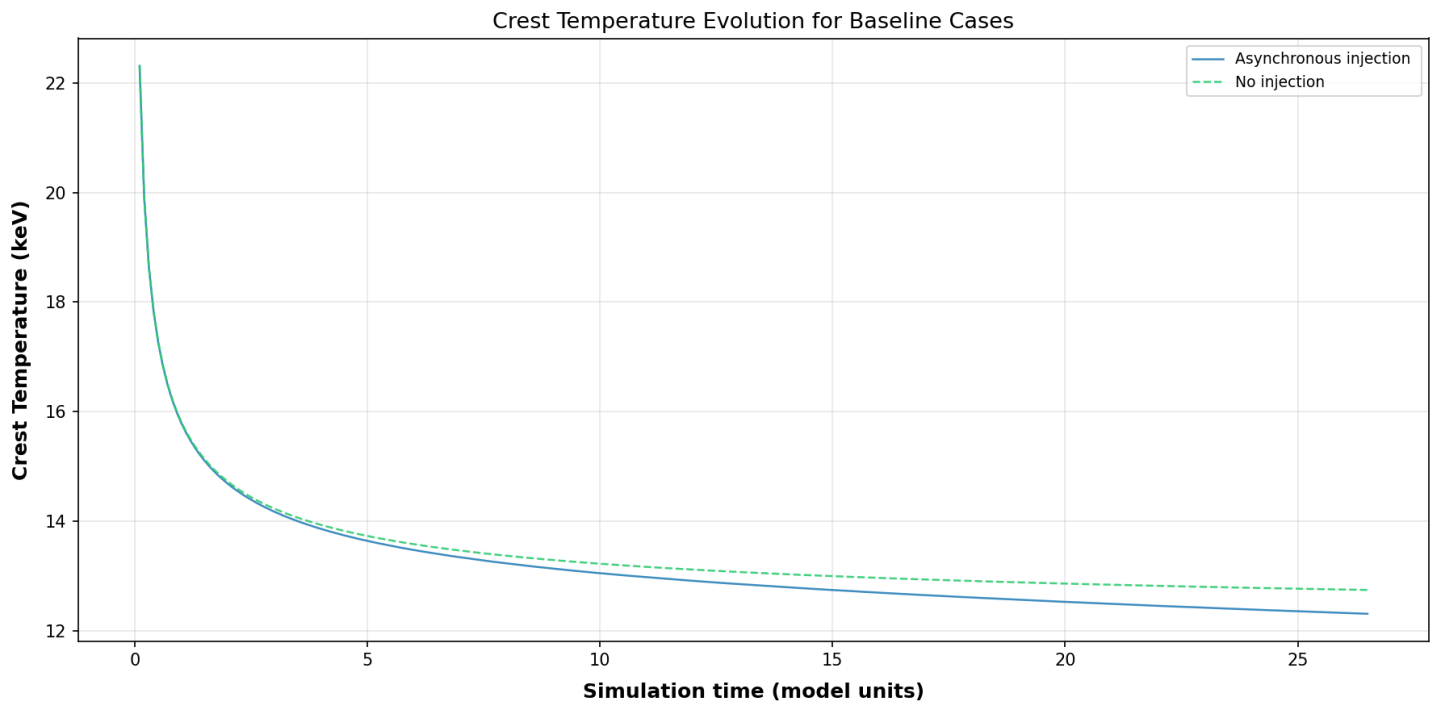
(Dated: April 07, 2026)

Supplement A - Full Resolution Figures

Supplement A provides full-resolution versions of Figures 1-14 from the main text. These are included to allow detailed inspection of crest structure, diagnostics, and convergence behaviour that may be difficult to resolve in the scaled two-column layout used in the primary manuscript.

The supplement figures correspond directly to the figures presented in the main text and contain no additional data or analysis beyond the higher-resolution visualizations.

Figure 1



* research@chatwoodlabs.com

Figure 2

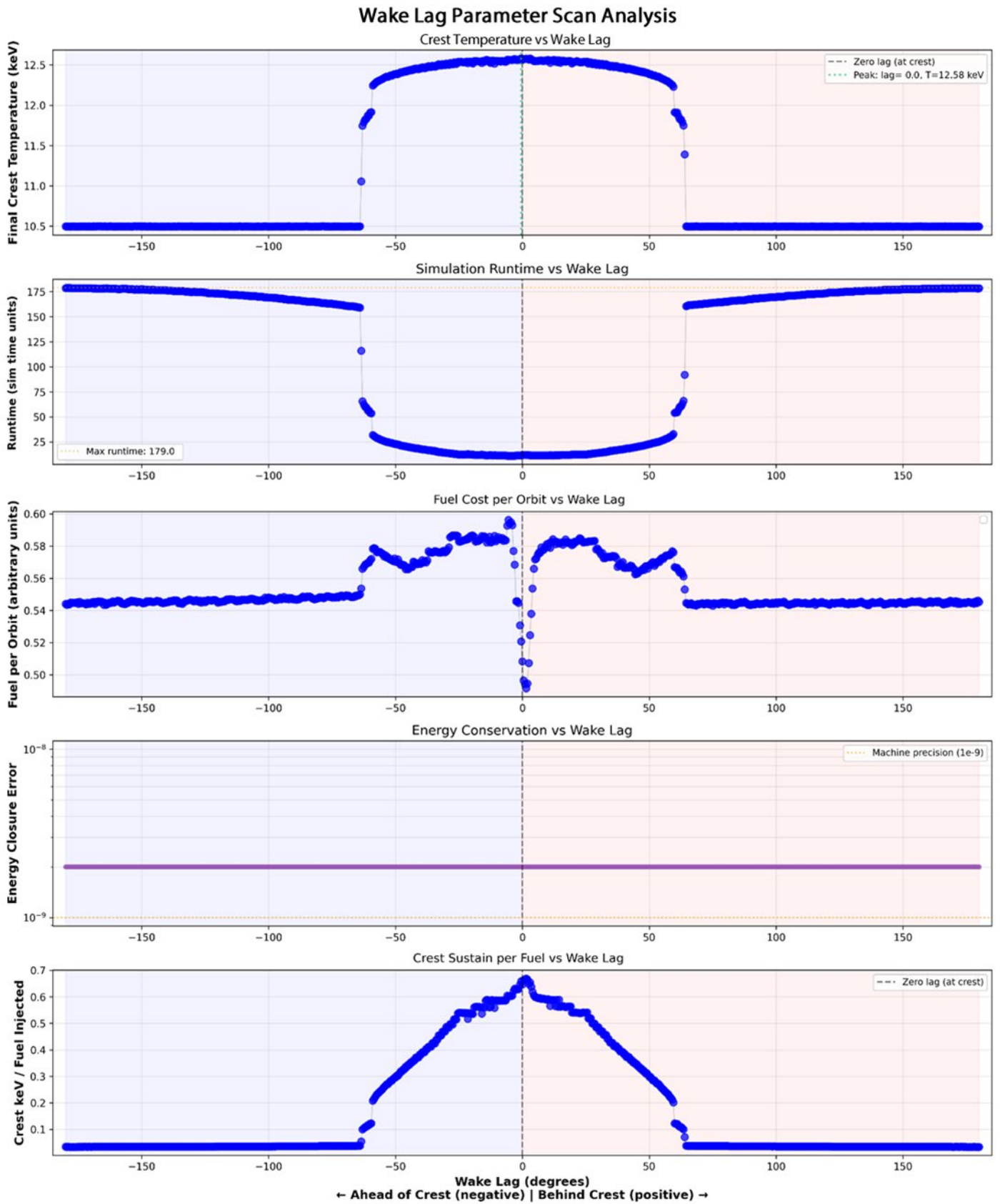


Figure 3

Wake Lag Parameter Scan Analysis

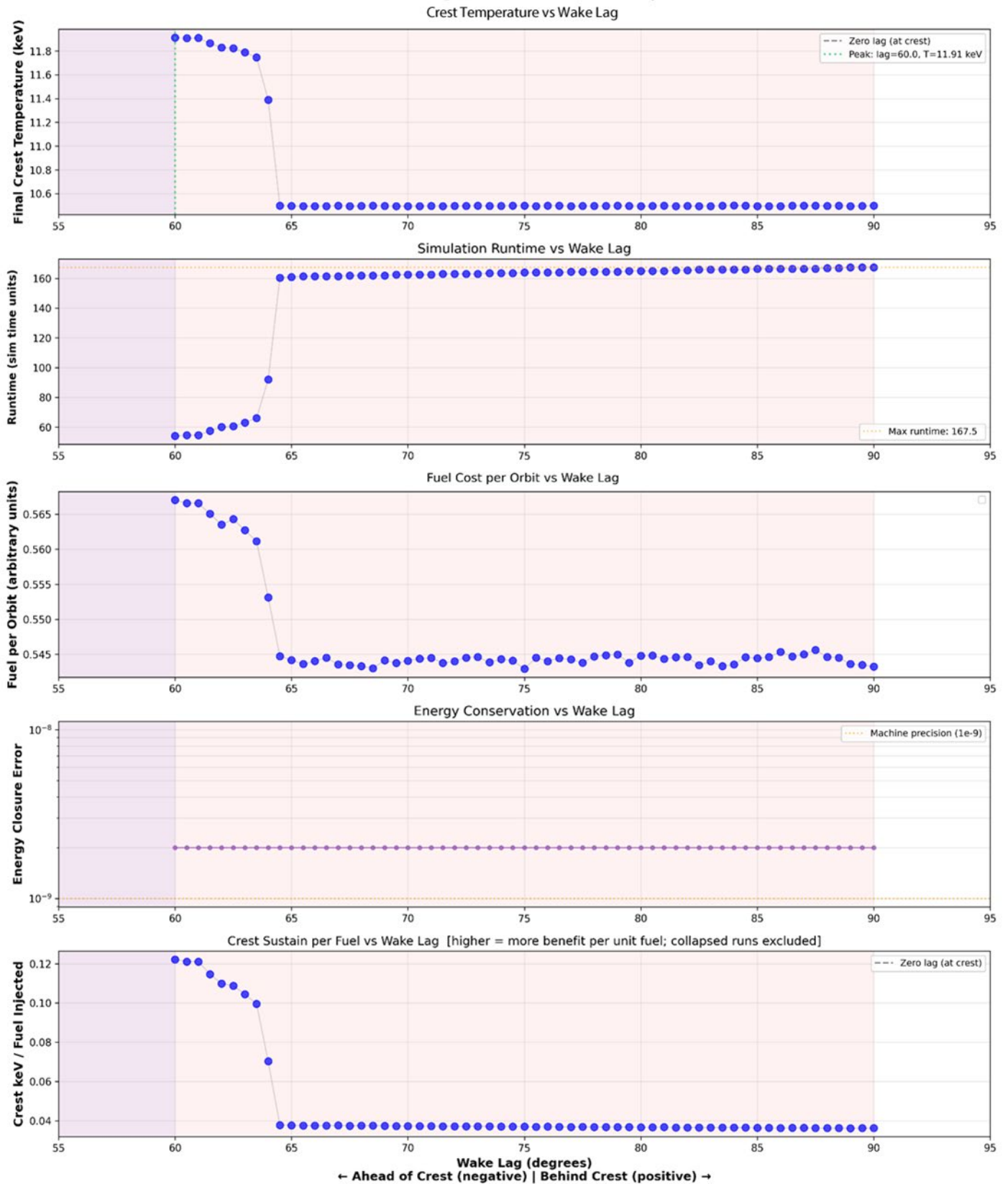


Figure 4

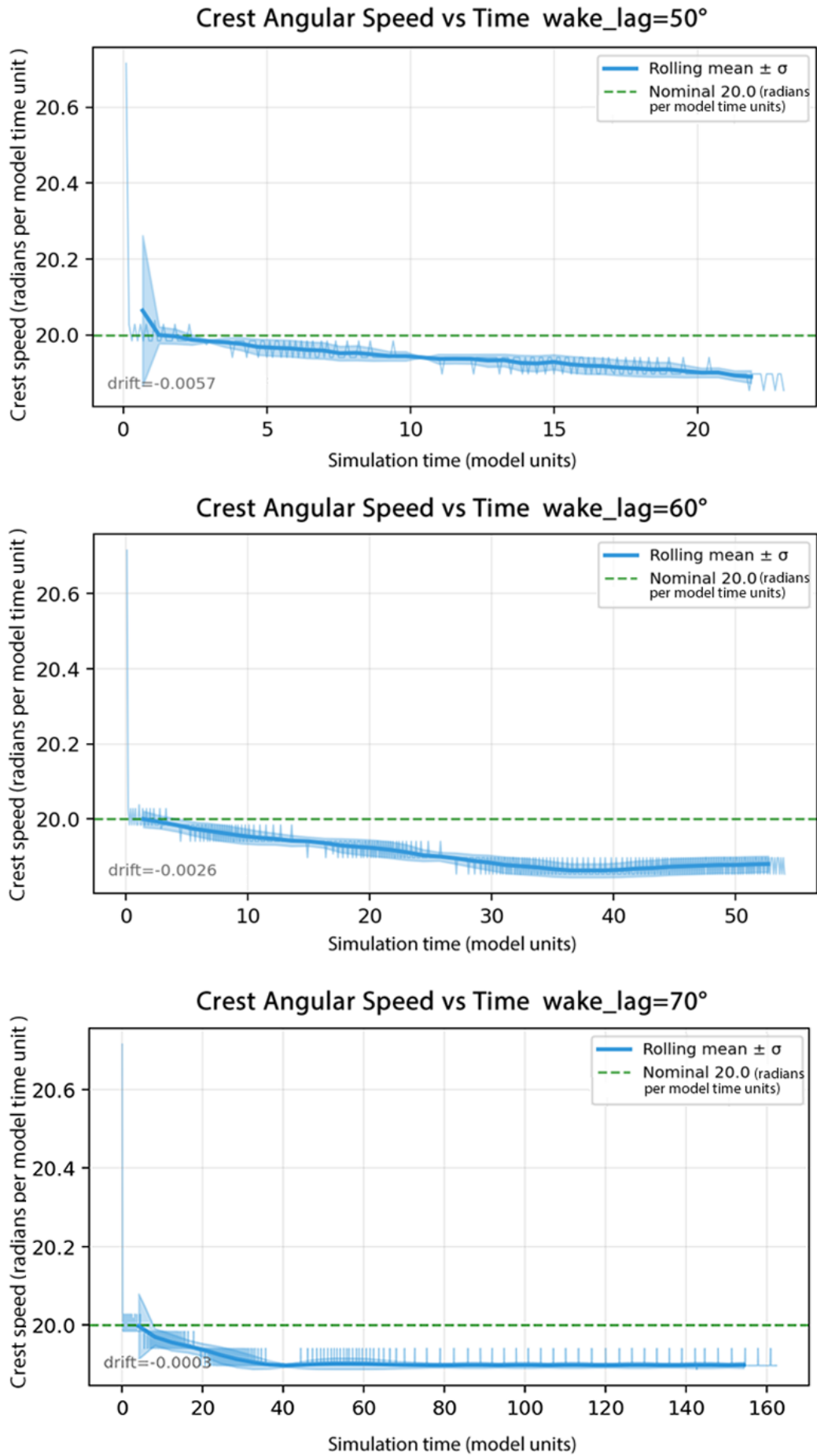


Figure 5

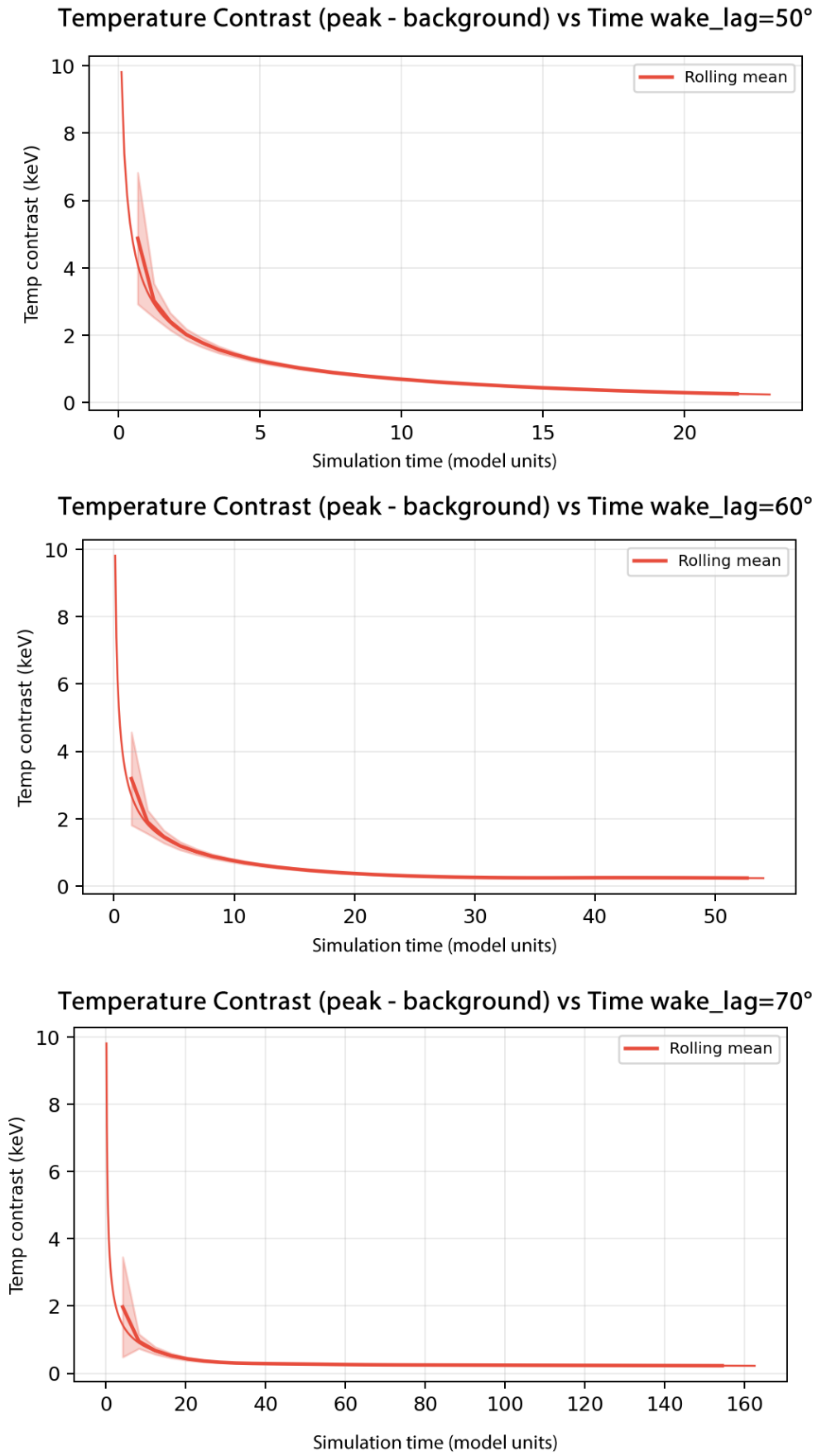


Figure 6

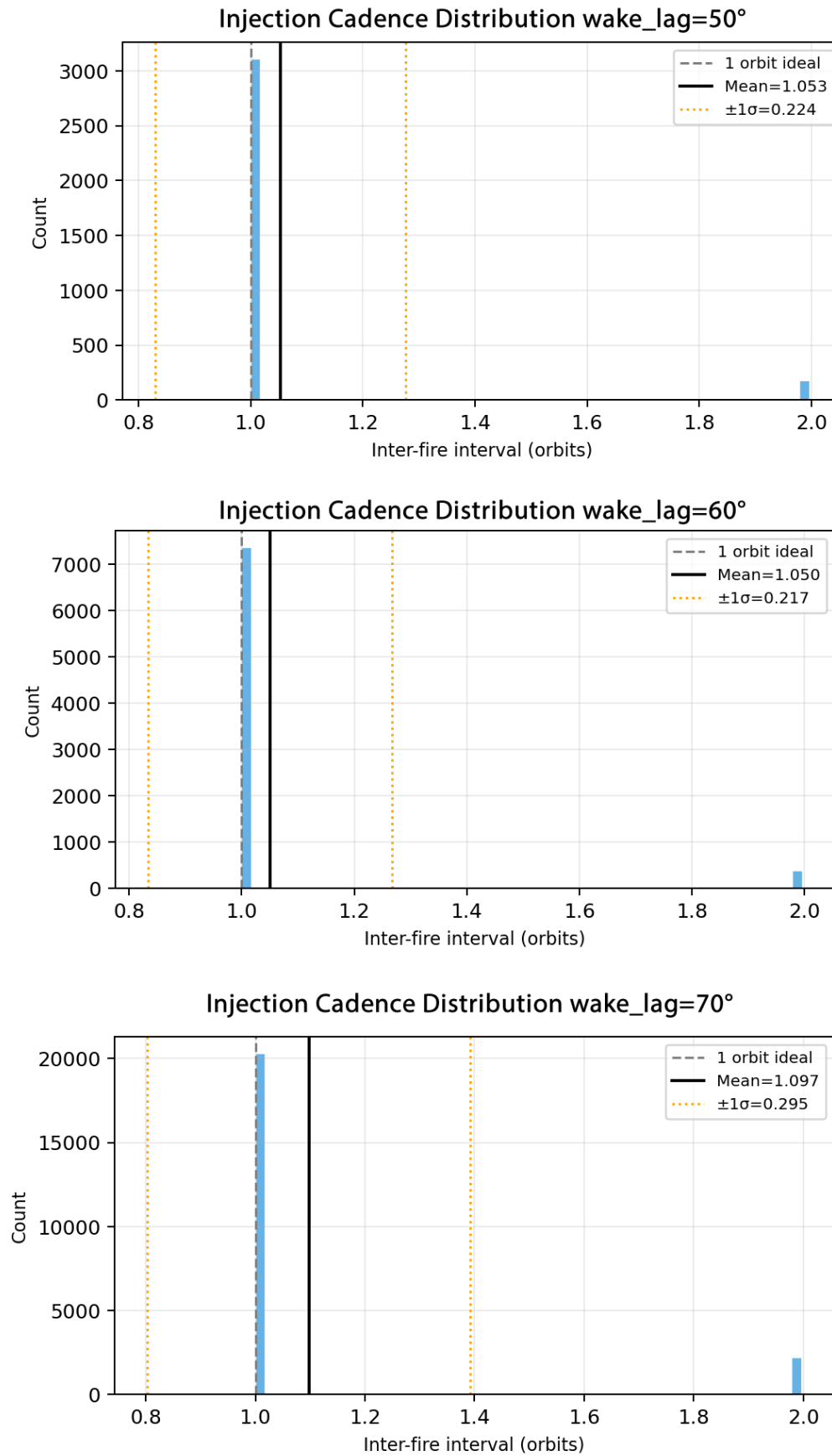


Figure 7

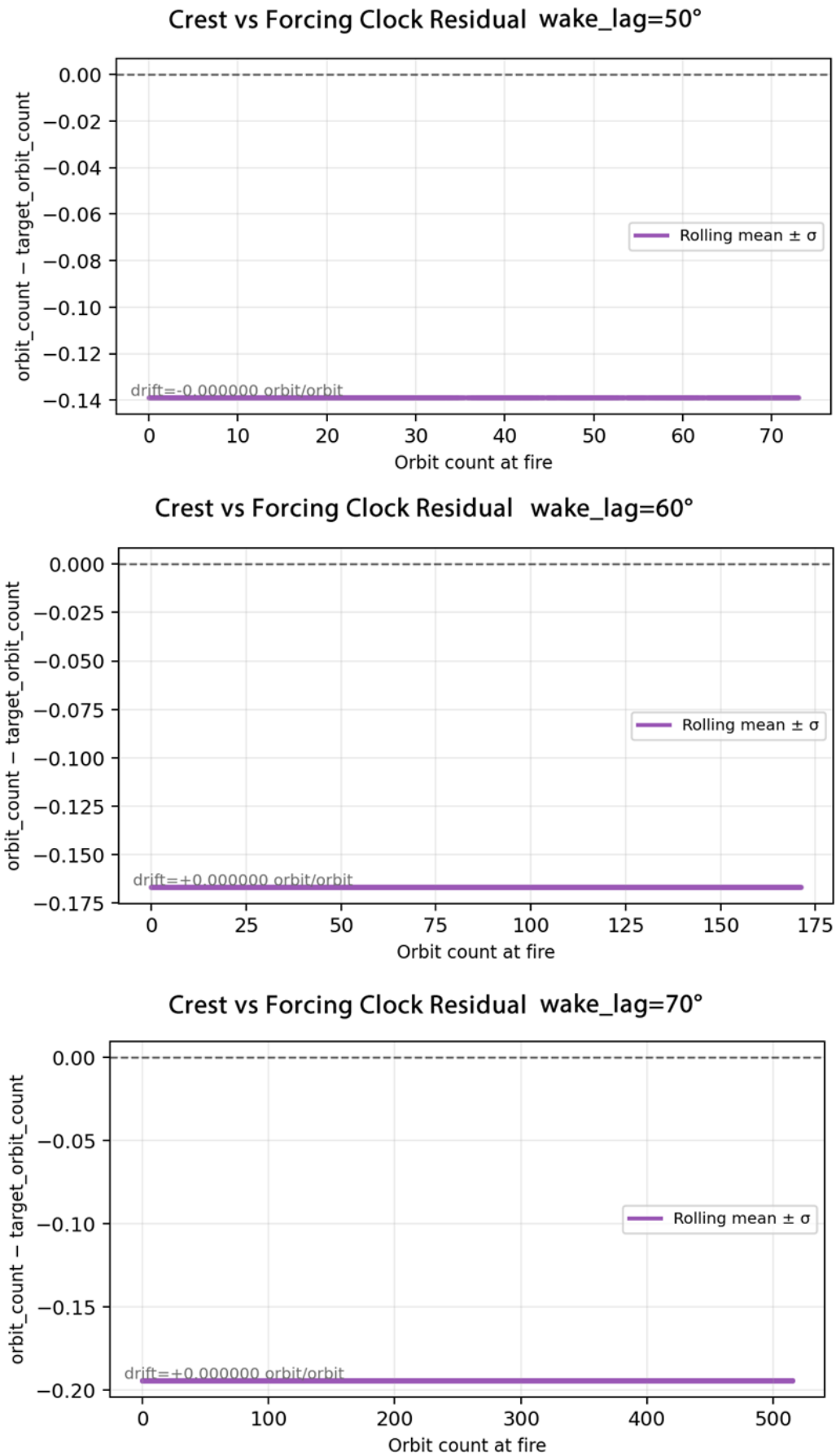


Figure 8

Termination Criteria Sensitivity of Wake-Lag Behaviour

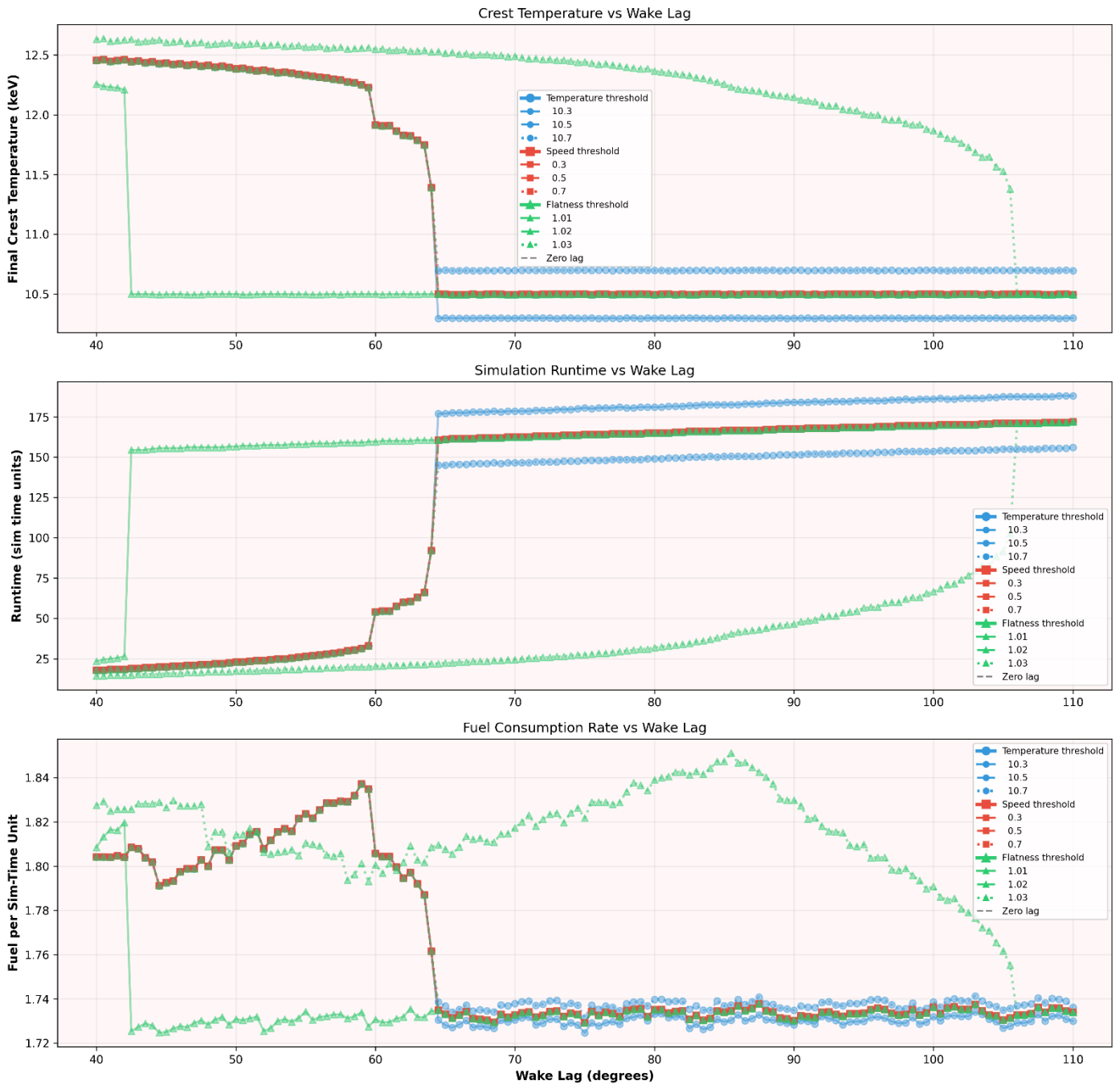


Figure 9

Crest Speed Sensitivity of Wake-Lag Behaviour

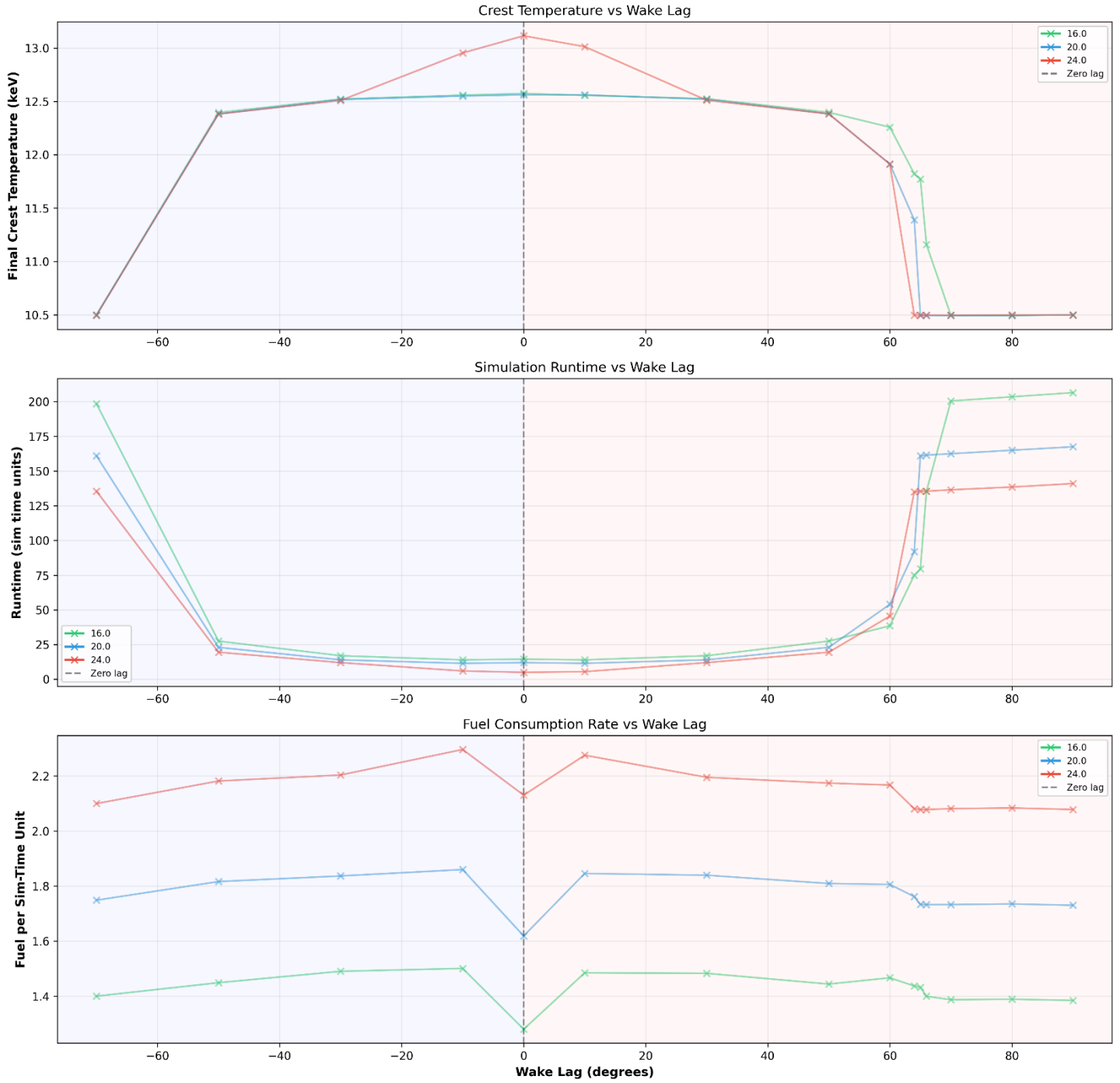


Figure 10

Thermalization Rate Sensitivity of Wake-Lag Behaviour

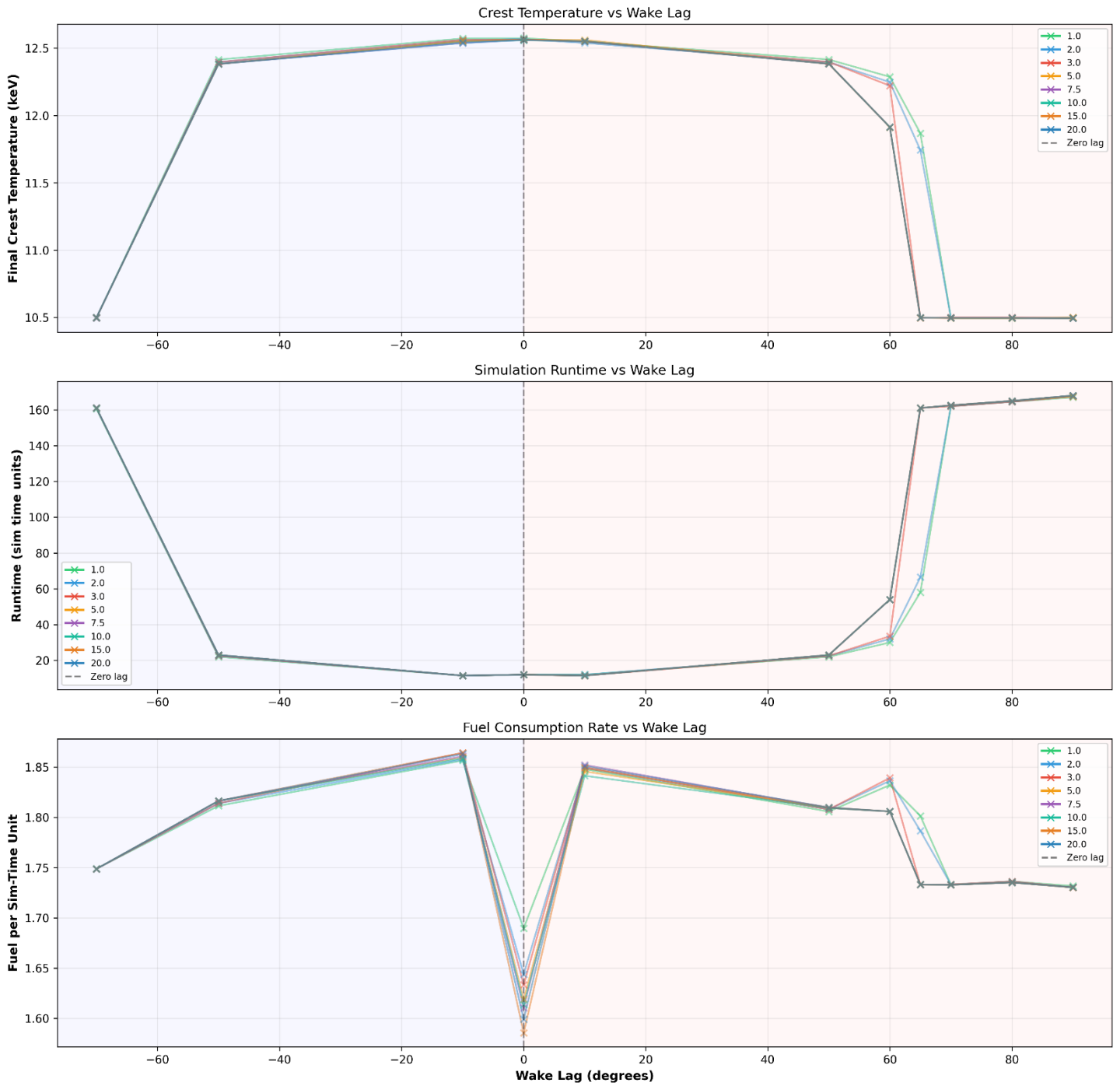


Figure 11

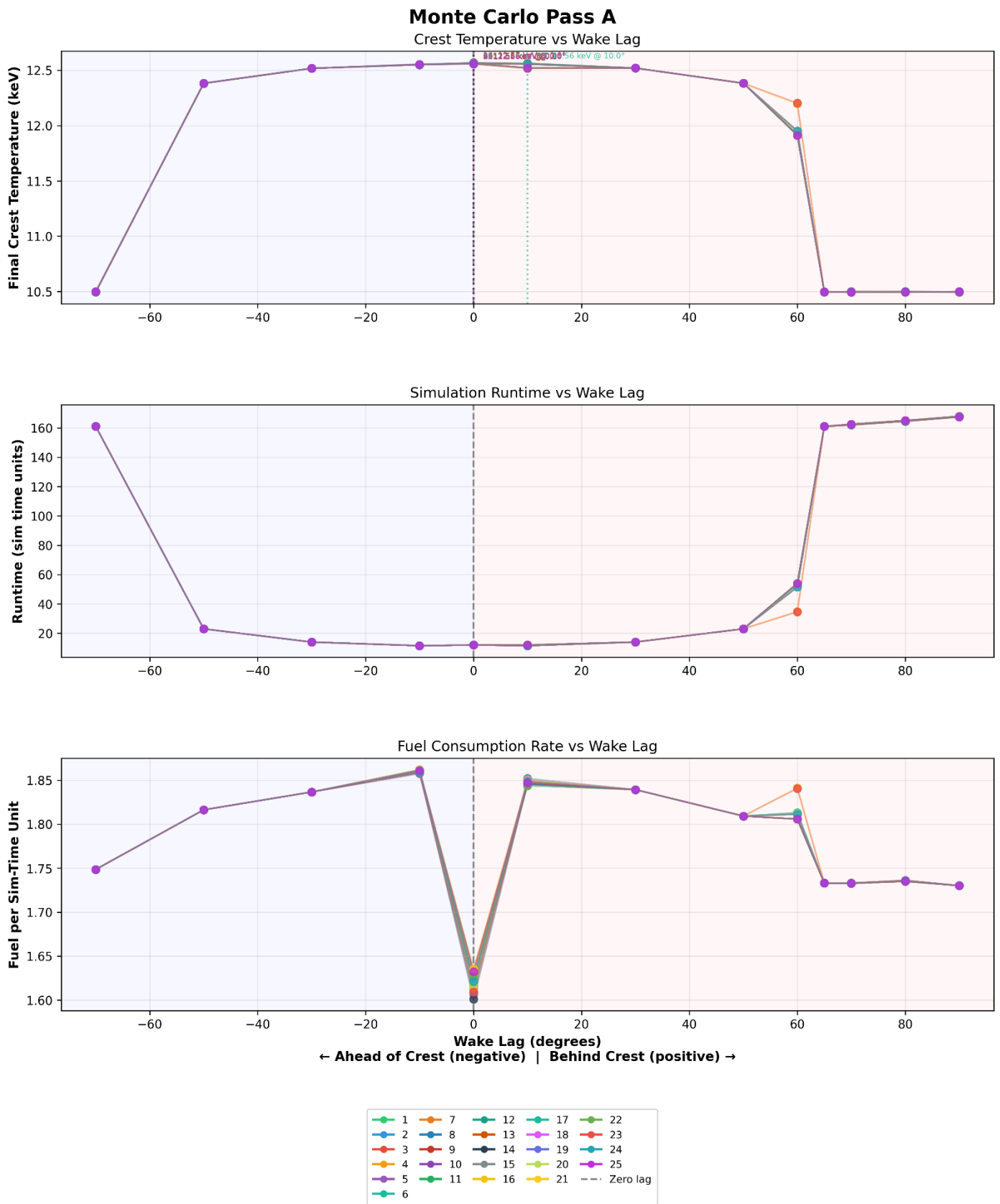


Figure 12

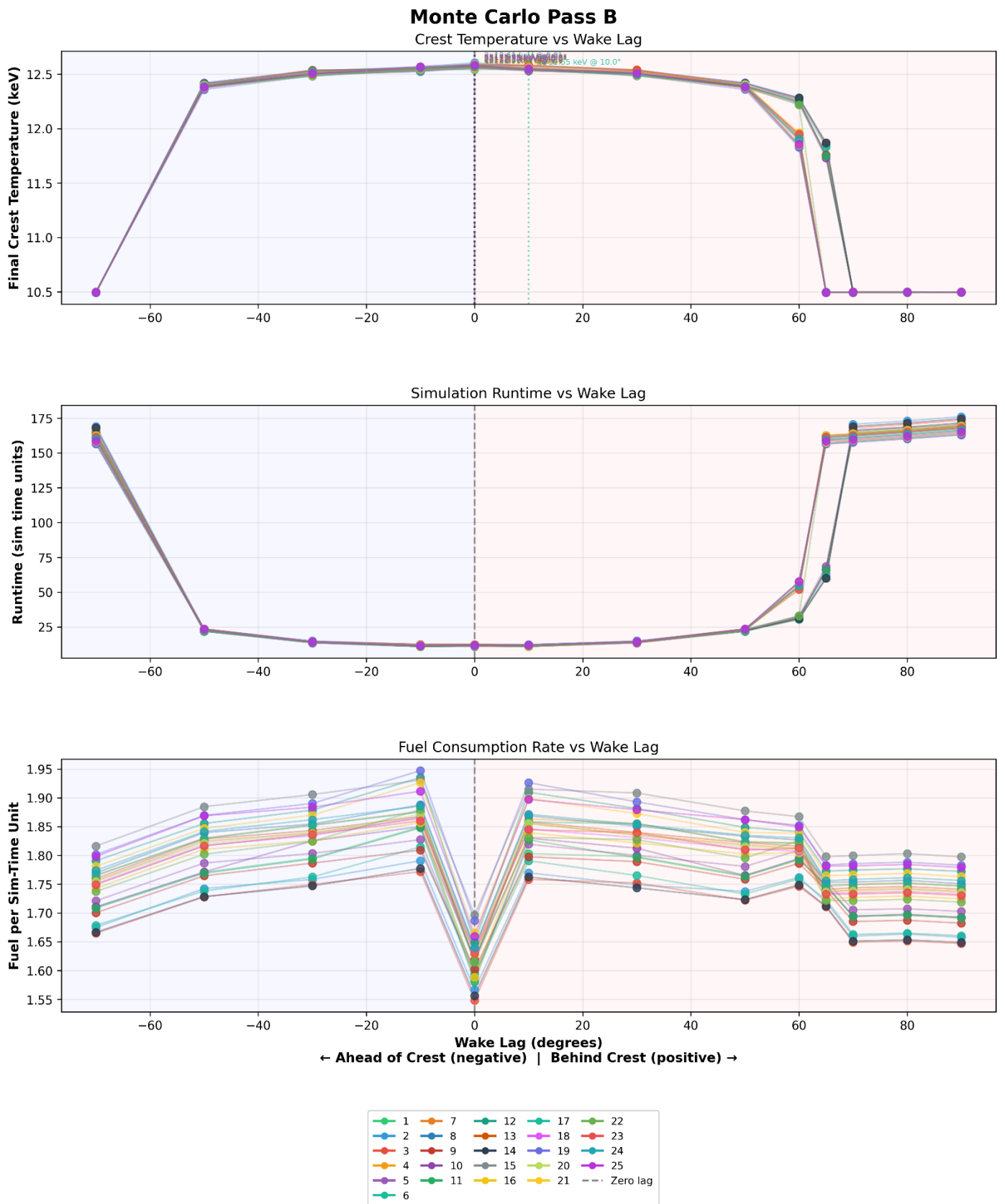


Figure 13

Wake Lag Scan - Overlay Comparison

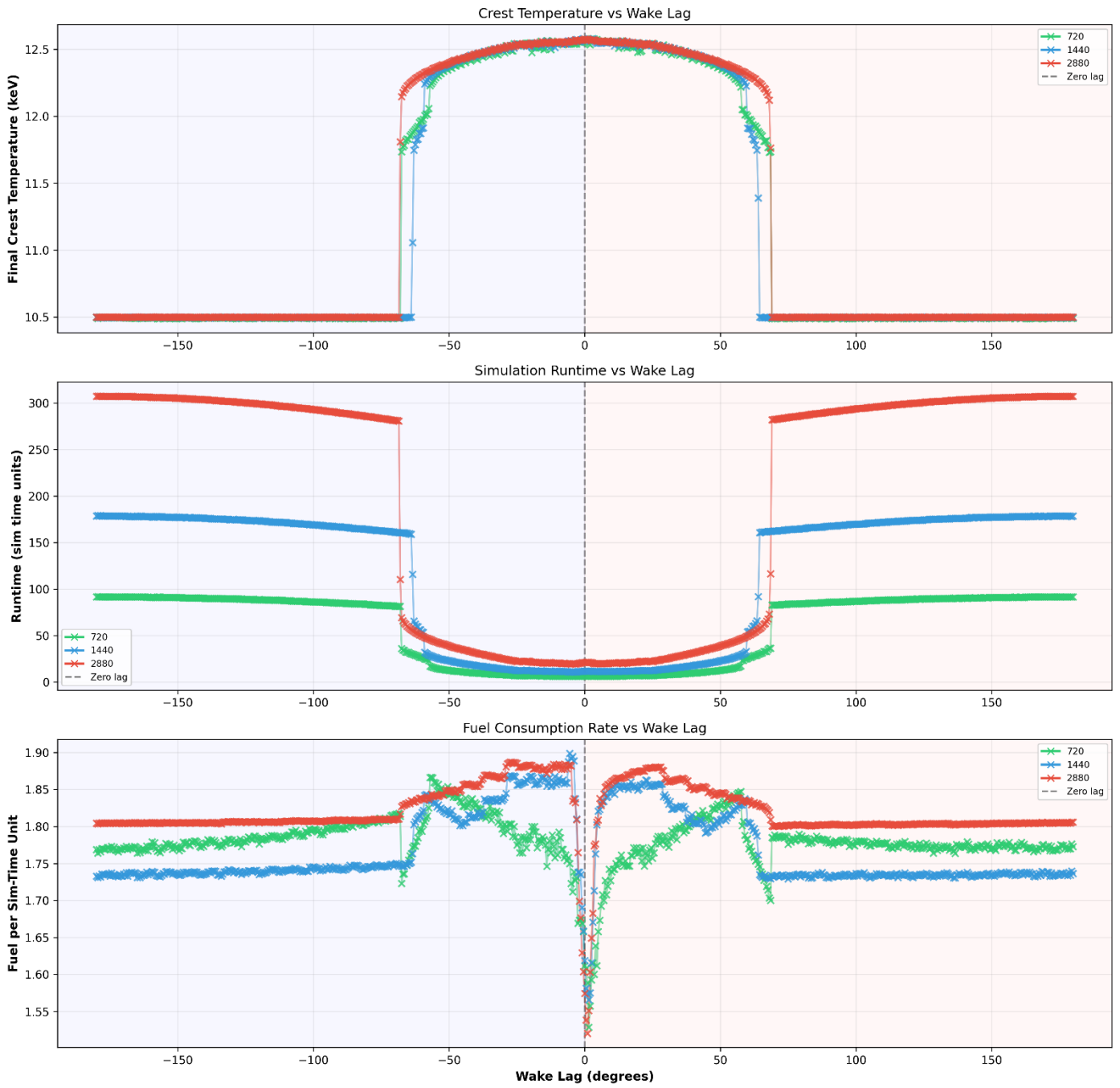


Figure 14

