



## Supplementary: Notation Reference

This supplement provides a comprehensive reference for the mathematical notation used throughout the Cognitive Integrity Framework (CIF) manuscript, including the eusocial and colony cognitive security extensions. Symbols are organized by domain, with cross-references to their formal definitions in the main text and supplements.

### Adversary Model Notation

Symbol	Meaning	Defined In
$\Omega_k$	Adversary class $k$ (e.g., $\Omega_1$ = External, $\Omega_5$ = Systemic)	def:adversary-class
$\mathcal{R}$	Attack resource tuple $\langle R_C, R_K, R_A, R_P, R_{Co} \rangle$	def:resources
$R_C$	Computational resources (FLQPC, $b_{\text{max}}$ )	tab:resource-types