

V: Reader's Guide and Contract Layer

(thermodynamic $\Delta S \geq 0$, kinematic $\mathbf{U}^{(4)} = 0$)

Verification Tensor (V)

October 13, 2025

Abstract

This note declares the shared symbols and three contracts used across the build. All statement handles are made title-safe via `\ensuremath`, so they can be used directly in text, headings, and captions without extra math delimiters.

Contracts

- G1 (thermodynamic closure): $\Delta S \geq 0$.
- G2 (kinematic closure, strong): $\mathbf{U}^{(4)} = 0$.
- G2 (weak/reciprocity): $\mathbf{B}(\mathbf{U}, \varphi) = 0 \forall \varphi \in \mathcal{V}$; summarized as Discrete–continuum reciprocity via \mathbf{B} .

Shared symbols

$\mathbf{U}, \mathbf{V}, \varphi \in \mathcal{V}, \nabla, \mathcal{C}, \mathbf{B}(\cdot, \cdot), S, \mathbf{U}^{(4)}$.

Usage notes

The statement handles already include math mode. Prefer `(\GOneStatement)` not `\(\GOneStatement\)`. Avoid `\left...right` unless you include both sides.