

ReparoML — Theory Summary

[Link to Reparodynamics Laws](#)

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Law 1 — Repair Gradient

Targeted updates restore stability along the steepest improvement direction (saliency-guided).

Law 2 — Bounded Energy

Repair must fit an energy budget; we measure proxy energy via parameter delta norms.

Law 3 — Efficient Equilibrium

Diminishing returns enforce smaller steps as the system nears equilibrium.

Law 4 — Fault-Responsive Adaptation

Repair prioritizes components impacted by specific degradation modes (noise, drift, dropout).

Law 5 — Stability per Joule (BPI)

Optimization objective is performance gain per energy spent, not absolute performance alone.