

# Experimental Validation of the Amiyah Rose Smith Law

Supplementary Materials: Full Derivations and Extended Discussion

## 1. Detailed Mathematical Derivations:

- Step-by-step expansion of the Amiyah Rose Smith Law.
- Integration with the Kerr metric and modifications to relativistic time dilation.

## 2. Extended Discussion:

- Further implications for deep-space missions and gravitational time distortions.
- Possible quantum mechanical considerations in ultra-high-density rotating systems.

## 3. Additional Figures & Graphs:

- Graphical representations of time dilation variations under extreme conditions.

## 4. Experimental Validation:

- Atomic clock experiments on high-density, high-velocity rotating platforms.
- Expected deviations from standard relativistic predictions.

## 5. Observational Evidence:

- Neutron stars, pulsars, and black hole accretion disks as potential test environments.