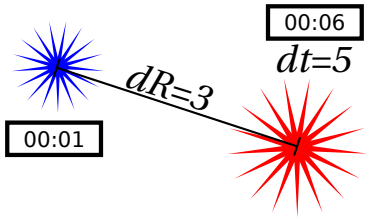
Special Relativity and Quaternion Gravity

View from above

A clock ticks faster, a ruler is bigger,
so more time, less distance
is measured between events.

$$(dt_+, dR_-)^2 = (16.0004, 30)$$

Two events
with gravity



A quaternion squared equals
the interval and space-times-time.

An invariant interval is special relativity.
An invariant space-times-time is quaternion gravity.

$$\begin{aligned}(dt, dR)^2 &= (dt^2 - dR^2, 2\,dt\,dR) \\ &= (5^2 - 3^2, 2 * 3 * 5) \\ &= (16, 30)\end{aligned}$$

Walk away

Signals arrive slower,
so more time, more distance
is measured between events.

$$(dt_+, dR_+)^2 = (16, 30.0004)$$

Walk toward

Signals arrive faster
so less time, less distance
is measured between events.

$$(dt_-, dR_-)^2 = (16, 29.9996)$$

View from below

A clock ticks slower, a ruler is smaller
so less time, more distance
is measured between events.

$$(dt_-, dR_+)^2 = (15.9996, 30)$$