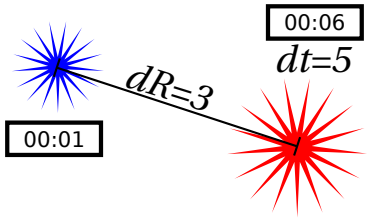
Special Relativity and Quaternion Gravity

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.

Walk toward

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

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

$$(dt, dR)^2 = (dt^2 - dR^2, 2\,dt\,dR)$$
$$= (5^2 - 3^2, 2 * 3 * 5)$$
$$= (16, 30)$$

Walk away

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

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

View from below

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

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