Parallel Equations

	Linear w/3D space	Linear w/3D time	Angular w/3D space	Angular w/3D time
Average Rate	$v = s/t$	$\ell = t/s$	$\omega = \theta/t$	$\psi = \vartheta/s$
Average 2nd Rate	$a = v/t$	$b = \ell/s$	$\alpha = \omega/t$	$\beta = \psi/s$
Instantaneous Rate	Velocity $v = ds/dt$	Lenticity $\ell = dt/ds$	Angular velocity $\omega = d\theta/dt = dt/d\vartheta$	Angular lenticity $\psi = d\vartheta/ds = ds/d\theta$
Instantaneous 2nd Rate	Acceleration $a = dv/dt$	Prestination $b = d\ell/ds$	Tangential acceleration $\alpha = d\omega/dt$	Tangential prestination $\beta = d\psi/ds$
Centripetal/Radial 2nd Rate	Centripetal acceleration $a_{cen} = v^2/R_s$	Centripetal prestination $b_{cen} = 1/(\ell^2 R_s)$	Radial acceleration $a_{rad} = R_s \omega^2$	Radial prestination $b_{rad} = R_t \psi^2$
Uniform Tangential Rate	$v_{tan} = 2\pi R_s/T$	$\ell_{tan} = T/(2\pi R_t)$	$v_{tan} = R_s \omega$	$\ell_{tan} = R_t \psi$
Circumference/Arc Length	Spatial circumference $S = 2\pi R_s$	Temporal circumference $T = 2\pi R_t$	Spatial arc length $\theta = s/R_s$	Temporal arc length $\vartheta = t/R_t$
Period	$T = 2\pi R_s/v$	$T = 2\pi R_t \ell$	$T = 2\pi/\omega$	$T = 2\pi/\psi$
Radius	Spatial radius $R_s = S/(2\pi v)$	Temporal radius $R_t = T/(2\pi \ell)$	Spatial radius $R_s = ds/d\theta = s/\theta = v/\omega$	Temporal radius $R_t = dt/d\vartheta = t/\vartheta = \ell/\psi$
Position	s	t	On a circle: $s = R_s \theta$	On a cycle: $t = R_t \vartheta$
Displacement	$s = s_0 + vt$	$t = t_0 + \ell s$	$\theta = \theta_0 + \omega t$	$\vartheta = \vartheta_0 + \psi s$
Second Equation of Motion	$s = s_0 + v_0 t + \frac{1}{2} a t^2$	$t = t_0 + \ell_0 s + \frac{1}{2} b s^2$	$\theta = \theta_0 + \omega_0 t + \frac{1}{2} \alpha t^2$	$\vartheta = \vartheta_0 + \psi_0 t + \frac{1}{2} \beta s^2$
First Equation of Motion	$v = v_0 + at$	$\ell = \ell_0 + bs$	$\omega = \omega_0 + \alpha t$	$\psi = \psi_0 + \beta s$
Third Equation of Motion	$v^2 = v_0^2 + 2a(s - s_0)$	$\ell^2 = \ell_0^2 + 2b(t - t_0)$	$\omega^2 = \omega_0^2 + 2\alpha(\theta - \theta_0)$	$\psi^2 = \psi_0^2 + 2\beta(\vartheta - \vartheta_0)$