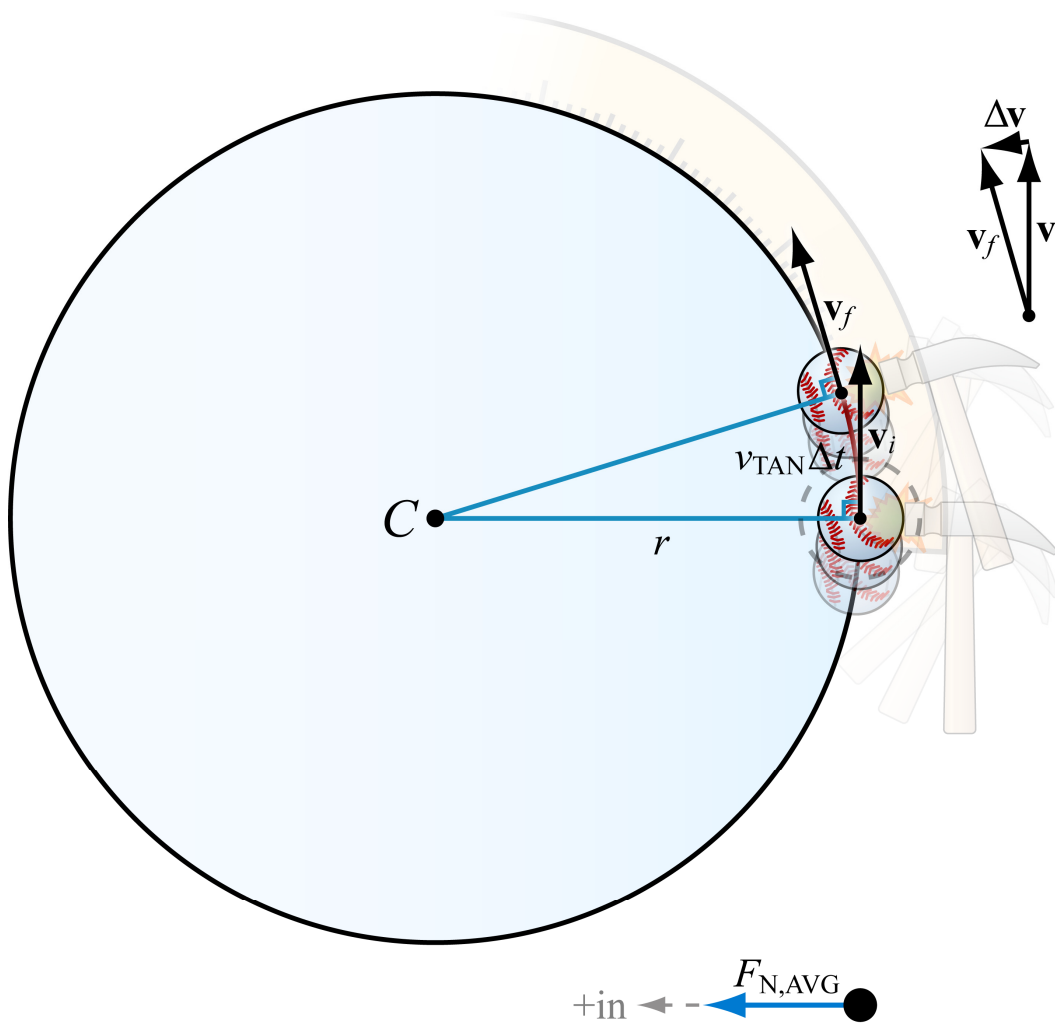


# Uniform circular motion



## Kinematics

$r$	radius
$c = 2\pi r$	circumference
$T$	period (lap time)
$f = \frac{1}{T}$	frequency $[f] = \frac{1}{s} = \text{Hz}$
$\omega = 2\pi f$	angular frequency
$v_{TAN} = \frac{c}{T} = \frac{2\pi r}{T}$	tangential speed
$a_{IN} = \frac{v_{TAN}^2}{r}$	inward (centripetal) acceleration

## Dynamics

$a_{IN} = \frac{\Sigma F_{IN}}{m}$	<b>net</b> of inward (centripetal) force components
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