

Formulas importantes

V.Tangente: $T = \frac{r'(t)}{\|r'(t)\|}$

V.Normal: $N = \frac{T'(t)}{\|T'(t)\|}$

V.Binormal: $B = T \times N$

Curvatura: $k = \frac{\|r' \times r''\|}{\|r'\|^3}$

Torsion: $\tau = \frac{(r' \times r'') \cdot r'''}{\|(r' \times r'')\|^2}$

Frenet Serret:

$$\frac{dT}{ds} = kN \qquad \frac{dN}{ds} = -kT + \tau B \qquad \frac{dB}{ds} = -\tau N$$