$au = c\kappa$.

$$c=0$$
 , 则 $\gamma(s)=(\int_0^s(\cos\int_0^u\kappa(t)\mathrm{d}t+a)\mathrm{d}u+b,\pm\int_0^s(\sin\int_0^u\kappa(t)\mathrm{d}t+a)\mathrm{d}u+c)$

c>0时, 令 heta(s) 满足 $heta'(s)=\kappa(s)$, 从而

$$egin{aligned} t_{ heta} = & t_s/ heta_s = n \ n_{ heta} = & n_s/ heta_s = -t - cb \ b_{ heta} = & b_s/ heta_s = cn \end{aligned}$$

从而 $n_{ heta heta}+(1+c^2)n=0$. 令 $c_0=\sqrt{1+c^2}$, 则

$$n(heta) = \cos{(c_0 heta)}e_1 + \sin{(c_0 heta)}e_2.$$

解得

$$egin{aligned} b(heta) &= rac{c}{c_0} \sin{(c_0 heta)} e_1 - rac{c}{c_0} \cos{(c_0 heta)} e_2 - rac{1}{c_0} e_3. \ t(heta) &= rac{1}{c_0} \sin{(c_0 heta)} e_1 - rac{1}{c_0} \cos{(c_0 heta)} e_2 \pm rac{c}{c_0} e_3. \end{aligned}$$

 $\theta = 0$ 时

$$egin{pmatrix} t \ n \ b \end{pmatrix} = egin{pmatrix} 0 & -1/c_0 & \pm c/c_0 \ 1 & 0 & 0 \ 0 & -c/c_0 & -1/c_0 \end{pmatrix} egin{pmatrix} e_1 \ e_2 \ e_3 \end{pmatrix}$$

(转换矩阵为正交矩阵, 故应取正号).

此时

$$egin{aligned} \gamma &= \int n \mathrm{d}s \ &= rac{\int \left[\sin \left(rac{\int_0^u \kappa(s) + c_1}{\sqrt{1 + c^2}}
ight) e_1 - \cos \left(rac{\int_0^u \kappa(s) + c_1}{\sqrt{1 + c^2}}
ight) e_2 + c e_3
ight] \mathrm{d}s}{\sqrt{1 + c^2}} \end{aligned}$$