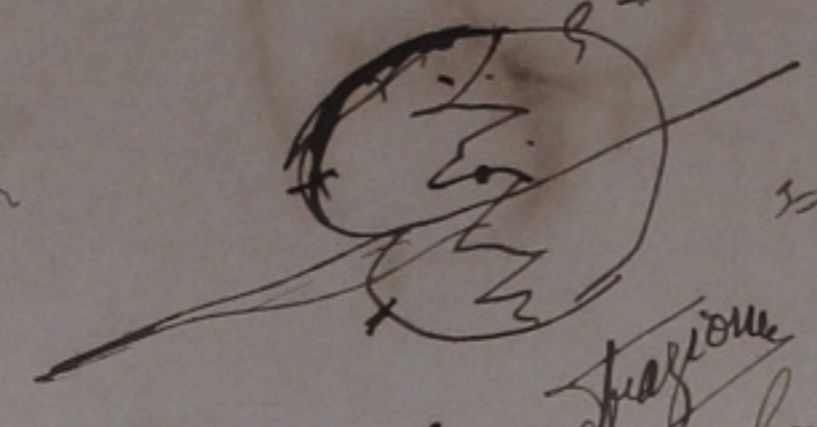


$kq^2 = -s + \dots$

$f$

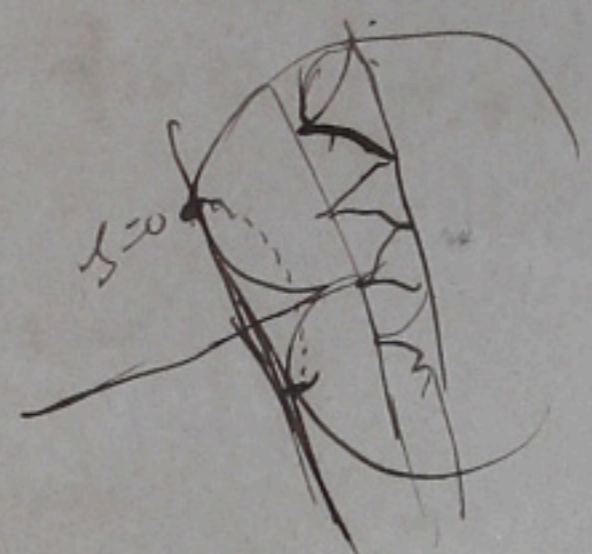
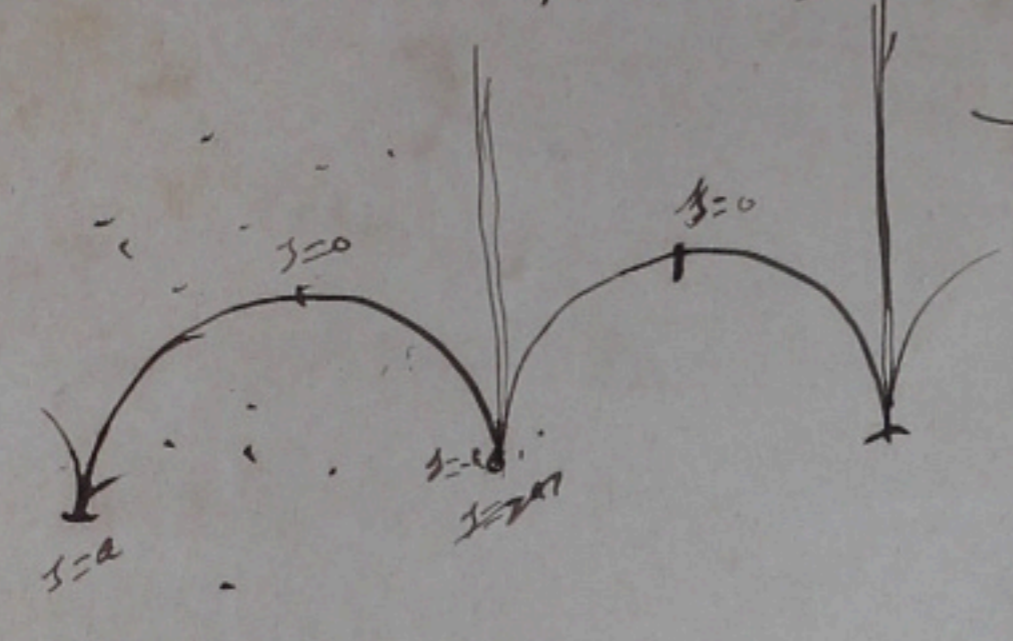


Non, Je n'ai pas trouvé de fautes dans la feuille et je ne puis en inférer. Inter

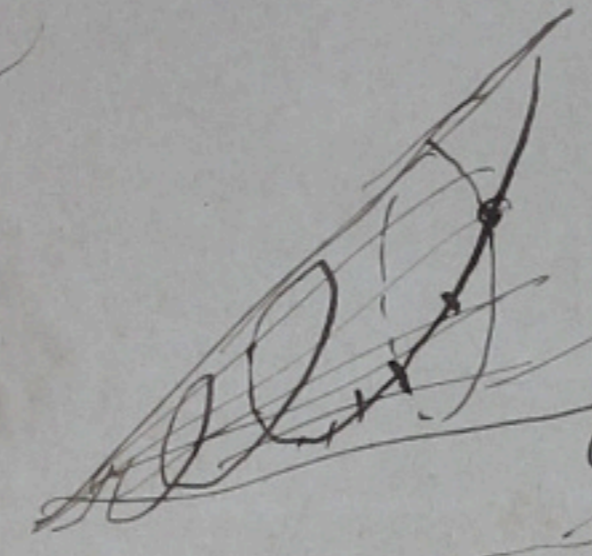
$f(s, s)$

$\rho = \sqrt{a^2 - s^2}$

$\frac{1}{r} = 0$

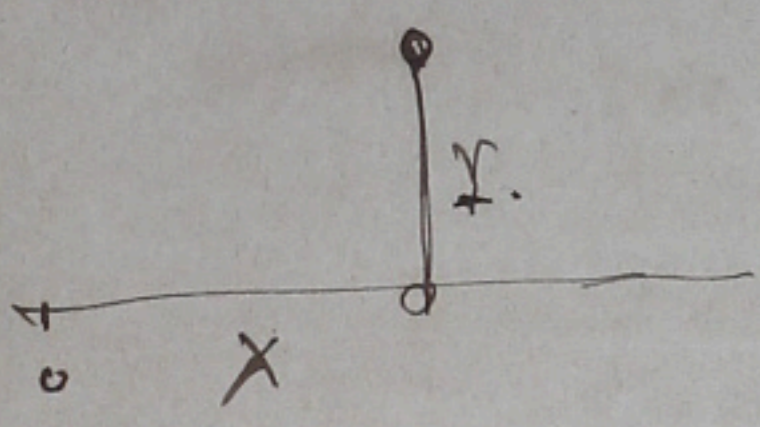


$\rho = us$      $r = us$



$x' = \frac{z}{\rho} - 1$	$\lambda' = \frac{\rho}{\rho}$
$y' = \frac{z}{\rho}$	$\mu' = \frac{z}{\rho}$
$z' = -\frac{x}{\rho} - \frac{y}{\rho}$	$\nu' = -\frac{z}{\rho} - \frac{\mu}{\rho}$

$\begin{cases} x + \lambda X \\ y + \mu X \\ z + \nu X \end{cases}$



$r^2 = x^2 + y^2 + z^2 + X^2 + 2X(\lambda x + \mu y + \nu z)$   
 $X^2 + r^2 = x^2 + y^2 + z^2$        $\lambda x + \mu y + \nu z = -X$

$\frac{d}{ds} = 2X + 2X(\lambda)$

$X = -(\lambda x + \mu y + \nu z)$

$r = \sqrt{x^2 + y^2 + z^2 - X^2}$

$\frac{dX}{ds} = +\lambda$

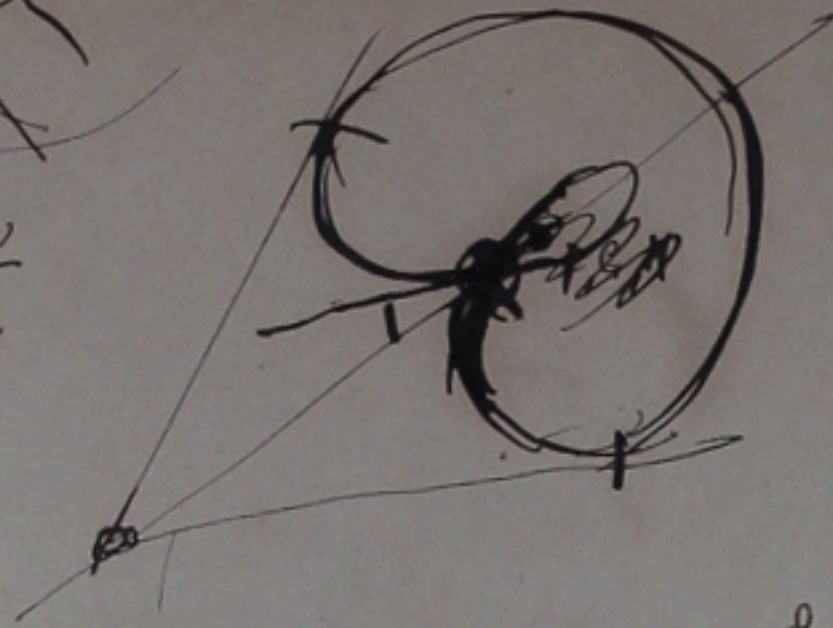
$\frac{dr}{ds} = -\frac{x + \lambda X}{r} + r \frac{d\lambda}{ds} = -x - \lambda X$

$\frac{ds_0^2}{ds^2} = \lambda^2 + \frac{(x + \lambda X)^2}{r^2} = \frac{\lambda^2 r^2 + (x + \lambda X)^2}{r^2} = \frac{\lambda^2(x^2 + y^2 + z^2) + 2\lambda X x + x^2 + 2\lambda x(\lambda x + \mu y + \nu z)}{r^2}$   
 $= \frac{(\mu^2 + \nu^2)x^2 + \lambda^2(y^2 + z^2) - 2\lambda x(\mu y + \nu z)}{r^2}$

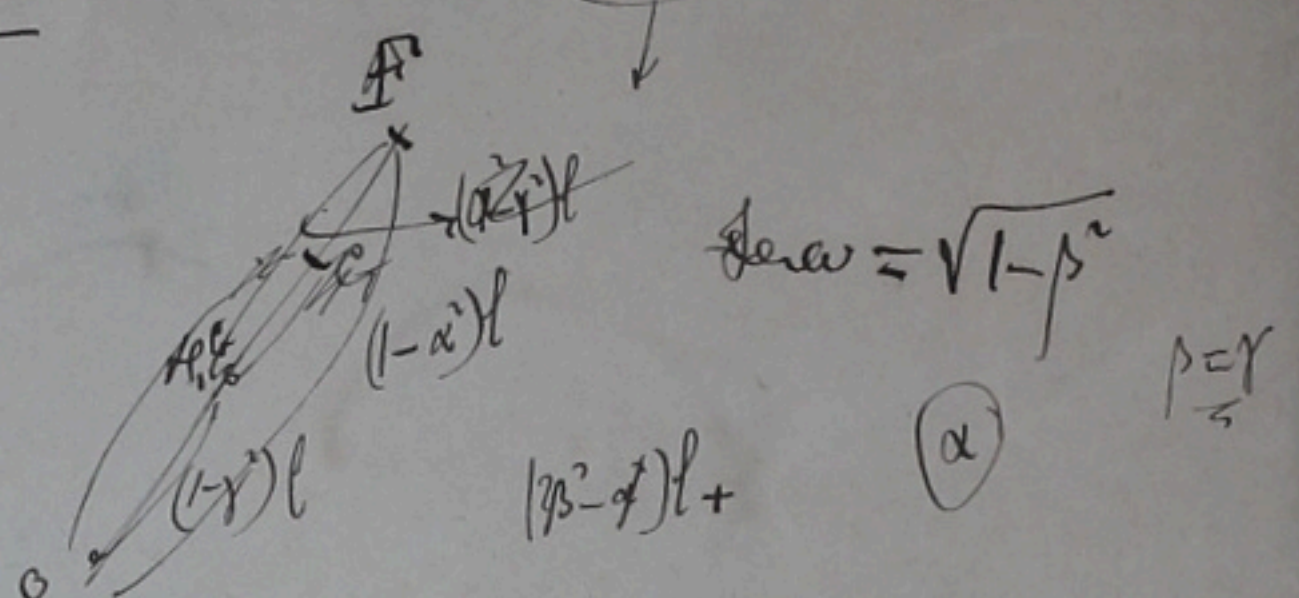
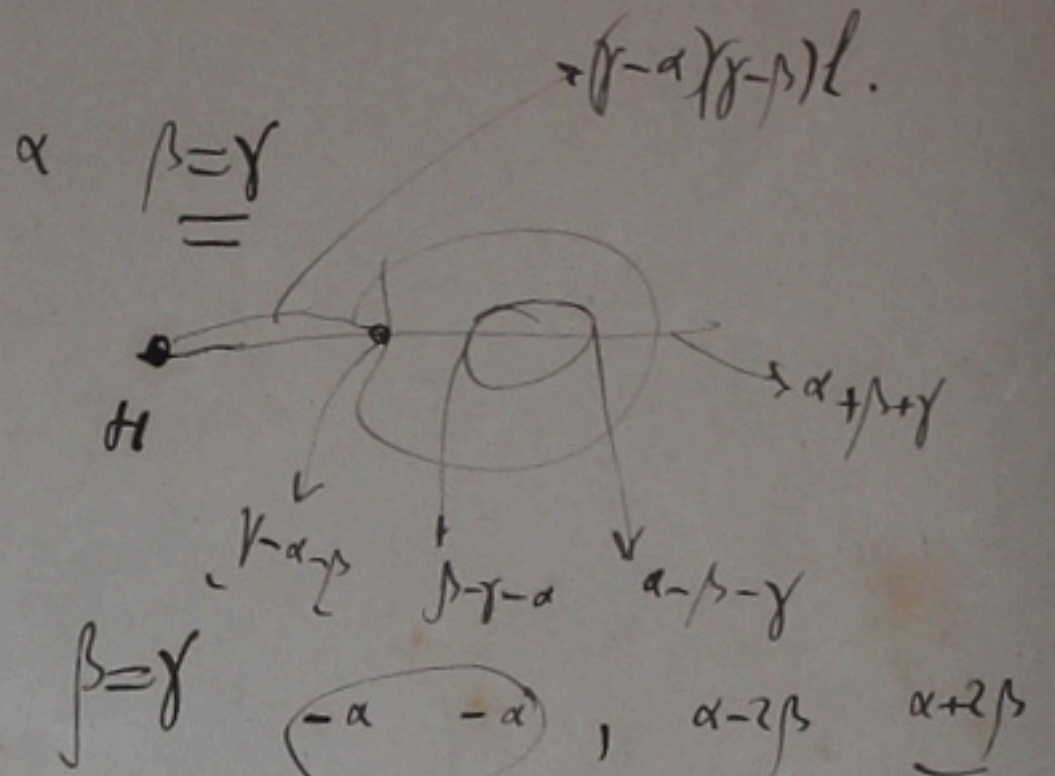
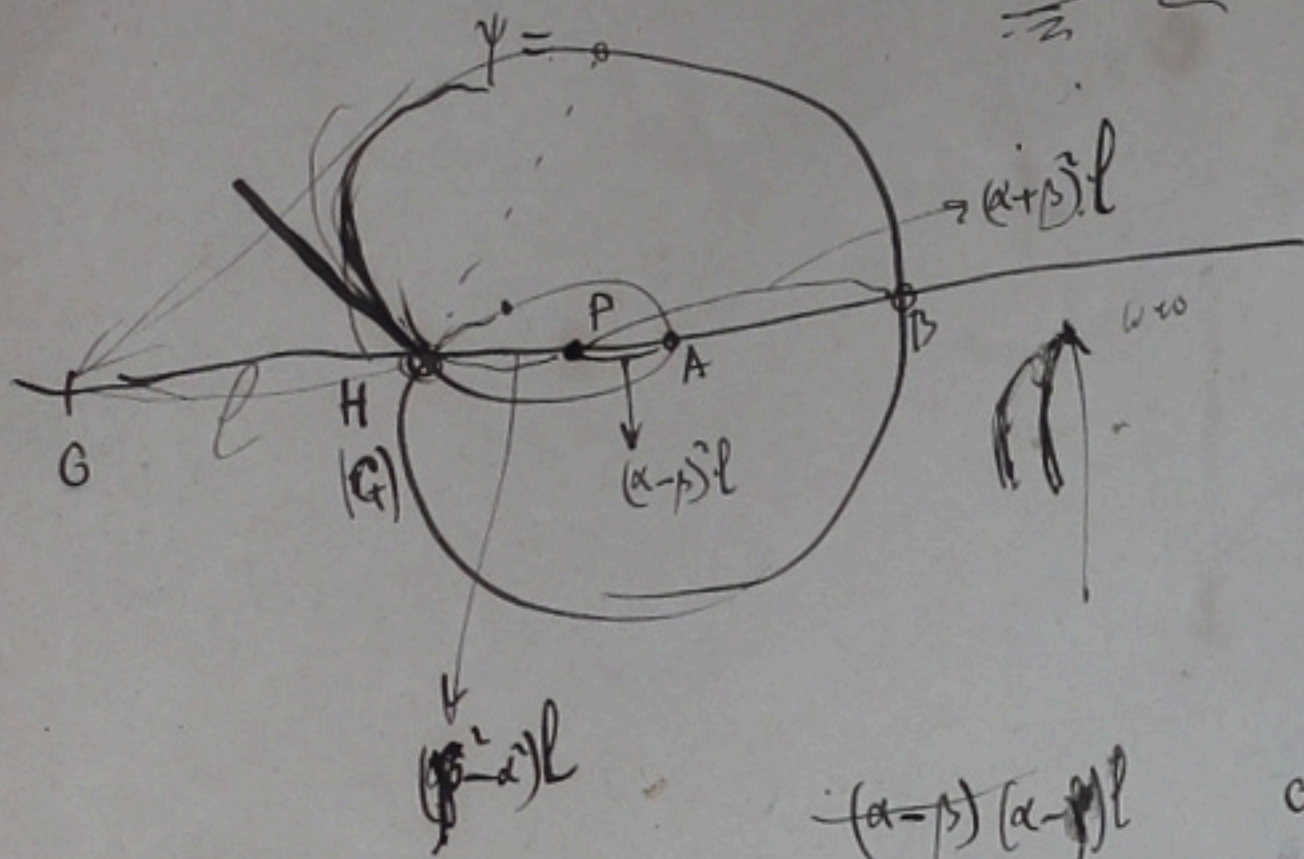


$$\frac{dy}{ds} = \frac{u\omega}{R}$$

$$y = \int \frac{u\omega}{R} ds$$



$$R_{\text{center}} = \frac{l}{2}$$



(H)

$$\lambda = -\alpha$$

- $(\alpha - \beta)(\alpha - \beta)l$
- $(\alpha - \beta)(\alpha + \beta)l$
- $(\alpha + \beta)(\alpha - \beta)l$
- $(\alpha + \beta)(\alpha + \beta)l$

$$HA = (\beta - \alpha)l + (\alpha - \beta)l = (\beta - \alpha)l = 2\beta(\beta - \alpha)l$$

$$HB = 2\beta(\beta + \alpha)l$$

$$u\omega = \sqrt{1 - \beta^2}$$

$$R_{\text{center}} = \frac{l}{2} \sqrt{1 - \alpha^2}$$

$$R_{\text{center}} = \sqrt{R^2 - \frac{l^2}{4}(\alpha + \beta)^2}$$

$$R_{\text{center}} = \sqrt{R^2 - \frac{l^2}{4}(\lambda + \alpha)^2}$$

$$R_{\text{center}} = \sqrt{R^2 - l^2[(\lambda + \alpha)\beta^2(\alpha\lambda + \beta^2)]}$$

- $\alpha\lambda + \beta^2$
- $\beta(\lambda + \alpha)$
- $\beta(\lambda + \alpha)$

$$-4R^2 = l^2 \cdot [\lambda + \beta + \gamma - \alpha](\lambda + \beta + \alpha - \lambda)(\lambda + \alpha + \beta - \lambda)(\lambda + \alpha + \beta - \lambda)$$

$$-4R^2 = l^2(\lambda + \alpha)[\lambda + \beta - \alpha](\lambda - \alpha - \beta)$$

$$-R^2 = l^2 \epsilon^2 (\alpha^2 - \beta^2 - \alpha\epsilon)$$

$$R_{\text{center}} \sqrt{\beta^2 - \alpha^2 + \alpha\epsilon} \cdot u\omega = \sqrt{(\beta^2 - \alpha^2 + \alpha\epsilon) - \beta^2[\beta^2 + \alpha(-\alpha + \epsilon)]}$$

$$u\omega = \sqrt{1 - \beta^2}$$

$$(1 - \beta^2)[(\beta^2 - \alpha^2) + \alpha\epsilon]$$

$$u\omega = \beta$$

$$2(\alpha + 2\beta) - \epsilon$$

$$2(\alpha - 2\beta) - \epsilon$$

$$2(\alpha - \beta) - 4\alpha\epsilon$$

$$-2\epsilon(\alpha)$$

$$\lambda = -\alpha + \epsilon$$

$$\lambda = -$$

$$-2\alpha + \epsilon + 2\beta$$

$$-\alpha + \epsilon - 2\beta$$