Roma 7 Dicembre 190

Ill.mo Sig.r Preside,

Una forte colica avuta questa notte m'impedisce di venire oggi all'Università per gli Esercizii di Algebra.

Con ossequio

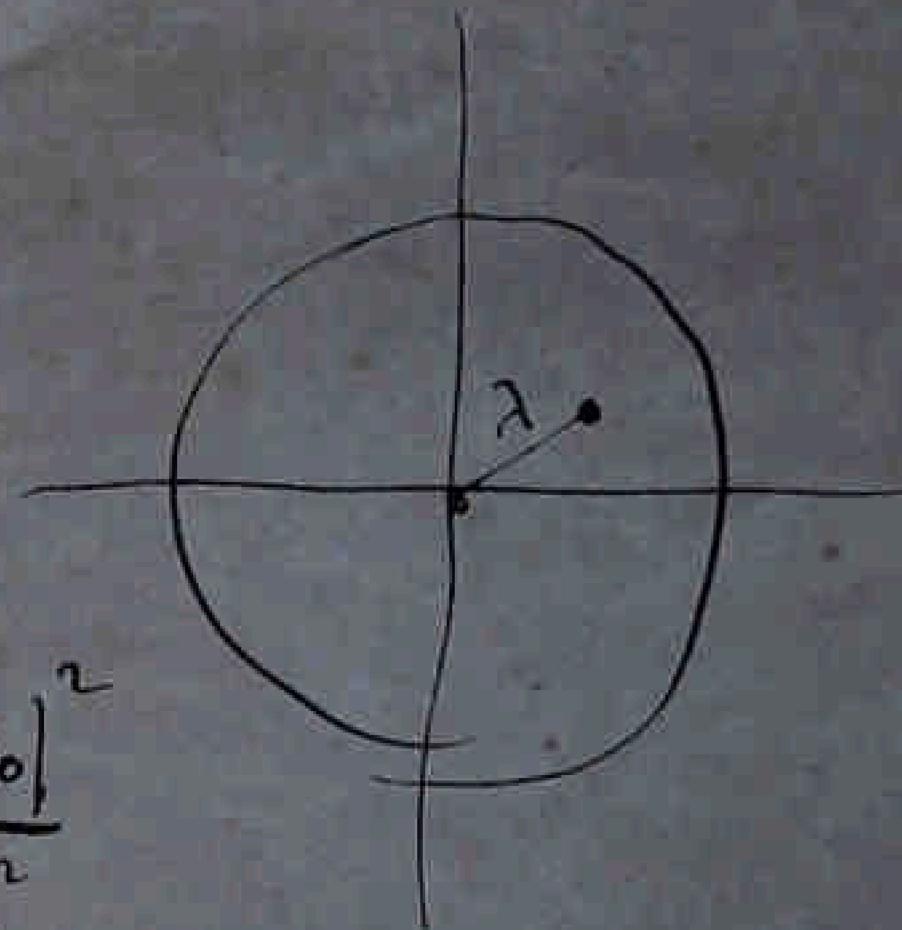
Dev.mo

F. Amodeo

$f(z) = a_0 + a_1 z + a_2 z^2 + \cdots$

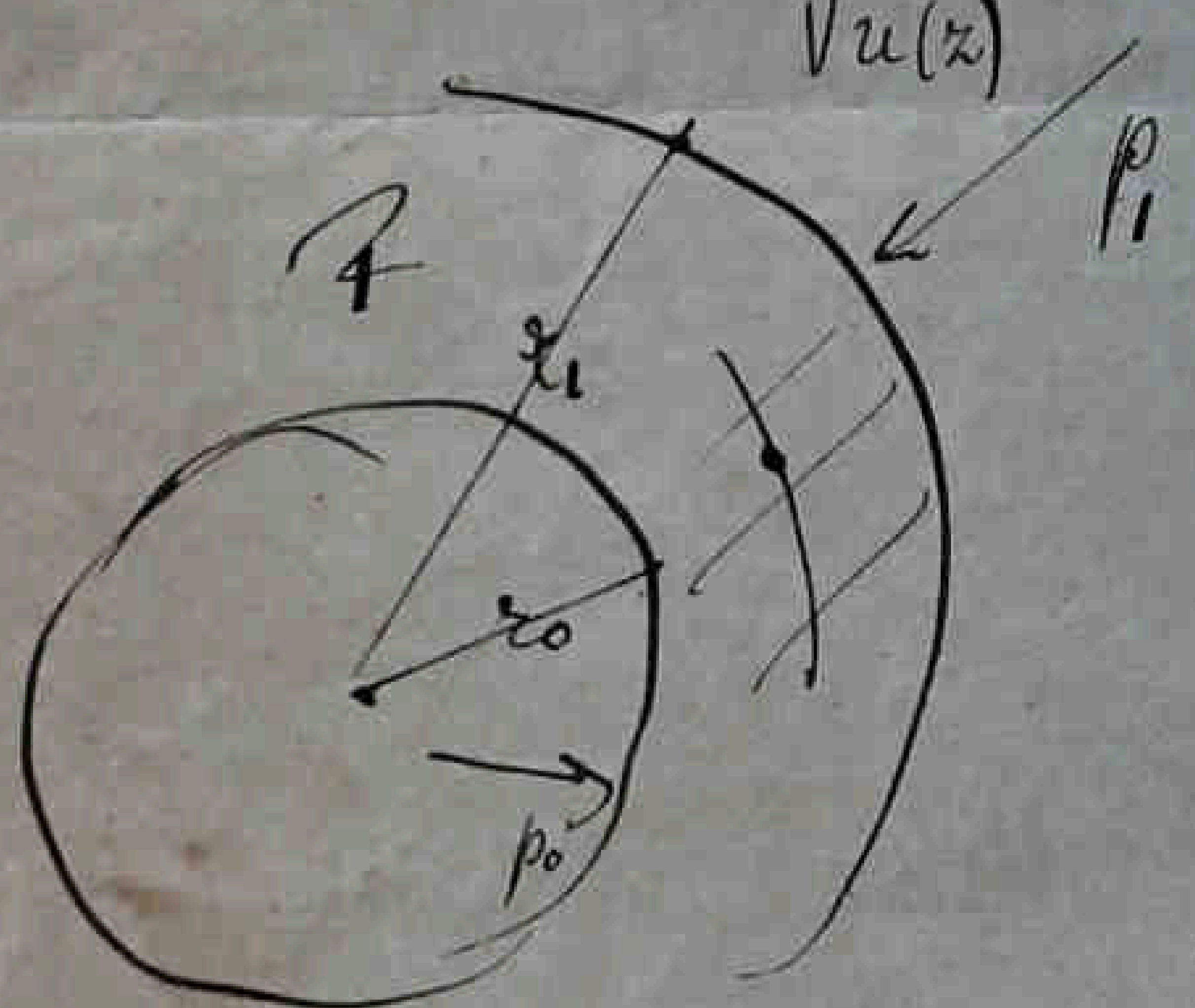
$a_0 \neq 0$

λ



$$u(z) = \left|\frac{1}{z^2}\right| \sum_0^\infty |a_n z^n|^2 \geqq \frac{|a_0|^2}{\lambda^2}$$

$$\lambda \geqq \frac{|a_0|}{\sqrt{u(z)}}$$



$$\left|\begin{array}{l} u = \varepsilon x \\ v = \varepsilon y \\ w = \varepsilon z \end{array}\right| \qquad \varepsilon(r)$$

~~$X + A$~~ $\partial \Theta$

$$~~X~~ + A\frac{\partial \Theta}{\partial x} + B\left(\frac{\partial \tau_2}{\partial z} - \frac{\partial \tau_3}{\partial y}\right) = 0, \quad \Xi + (A-2B)\Theta\frac{\partial x}{\partial n} + 2B\frac{\partial u}{\partial n} + B\left(\tau_3\frac{\partial y}{\partial n} - \tau_2\frac{\partial}{\partial}\right.$$

$$\int \varepsilon r\, dr = \varphi(r)$$

$$u = \varepsilon r \cdot \frac{x}{r} = \varepsilon r \frac{\partial r}{\partial x}$$

$$\left\{\begin{array}{l} u = \dfrac{\partial \varphi}{\partial x} \\ v = \dfrac{\partial \varphi}{\partial y} \\ w = \dfrac{\partial \varphi}{\partial z} \end{array}\right\} = ~~\varphi'(r) \cdot \frac{x}{r}~~ \qquad \left.\begin{array}{l} \tau_1 = 0 \\ \tau_2 = 0 \\ \tau_3 = 0 \end{array}\right|$$

$$\Theta = \Delta^2 \varphi$$

$$\Theta = 3\lambda$$

$$\Delta^2 \varphi = 3\lambda$$

~~$\frac{\partial \varphi}{\partial x} = \varphi'(r)$~~

$$\frac{\partial \varphi}{\partial x} = \varphi'(r)\frac{\partial r}{\partial x} = ~~-r^2 \varphi'(r)\frac{\partial}{\partial x}~~\frac{1}{r}$$

~~$\frac{\partial}{\partial x}\frac{1}{r} = -\frac{1}{r^2}\frac{\partial r}{\partial x}$~~

$$\frac{\partial \varphi}{\partial x} = \frac{\varphi'(r)}{r} x$$

$$\frac{\partial^2 \varphi}{\partial x^2} = \frac{\varphi'(r)}{r} + \frac{x^2}{r}\frac{d}{dr}\frac{\varphi'(r)}{r}$$

$$\Delta^2 \varphi = 3\frac{\varphi'(r)}{r} + r\frac{d}{dr}\frac{\varphi'(r)}{r} = 3\varepsilon + r\frac{d\varepsilon}{dr}$$

$$3\varepsilon r^2 + r^3\frac{d\varepsilon}{dr} = 3\lambda r^2 \qquad \varepsilon = \lambda + \frac{\mu}{r^3}$$

$$\frac{d}{dr}(\varepsilon r^3) = 3\lambda r^2 \qquad \varepsilon r^3 = \lambda r^3 + \mu$$