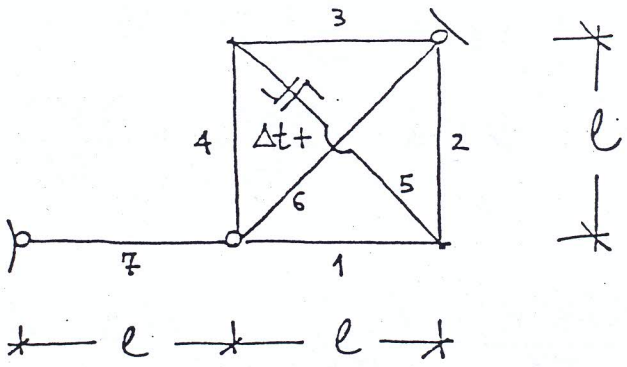
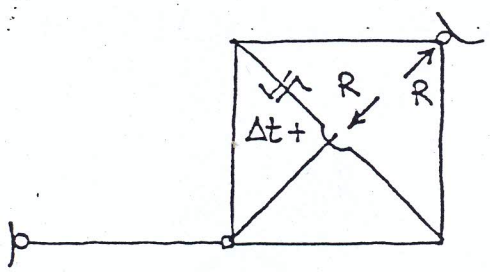
$EA = cost.$



1)



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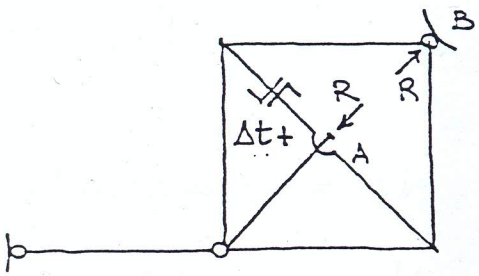
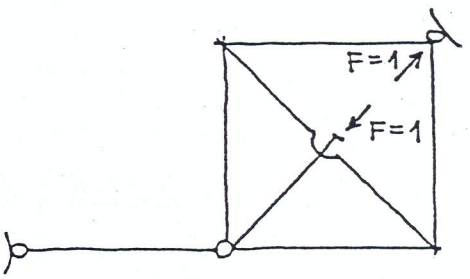


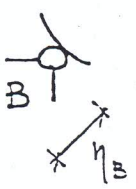
S.D.

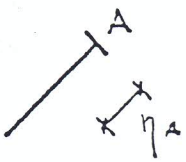


F.S.

$$\Delta\eta_{AB} = \eta_A - \eta_B$$

	1	2	3	4	5	6	7
ℓ_i	ℓ	ℓ	ℓ	ℓ	$\ell\sqrt{2}$	$\ell\sqrt{2}$	ℓ
N^t_i	$\sqrt{2}/2$	$\sqrt{2}/2$	$\sqrt{2}/2$	$\sqrt{2}/2$	-1	-1	0
N^r_i	$\frac{\sqrt{2}}{2}R$	$\frac{\sqrt{2}}{2}R$	$\frac{\sqrt{2}}{2}R$	$\frac{\sqrt{2}}{2}R$	$-R$	$-R$	0
$\Delta\ell^r_i$					$\alpha\ell\sqrt{2}\Delta t$		





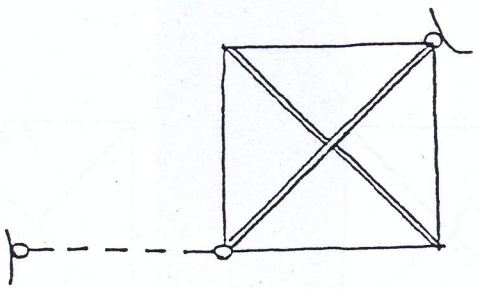
$$1\cdot\eta_A - 1\cdot\eta_B = \frac{1}{EA}\left(\frac{Rl}{2}+\frac{Rl}{2}+\frac{Rl}{2}+\frac{Rl}{2}+\sqrt{2}Rl+\sqrt{2}Rl\right)-\alpha l\sqrt{2}\,\Delta t$$

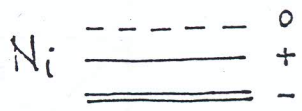
$$\Rightarrow \Delta\eta_{AB} = \frac{(2+2\sqrt{2})Rl}{EA} - \alpha l\sqrt{2}\,\Delta t$$

3) $$\Delta\eta_{AB} = \frac{(2+2\sqrt{2})Rl}{EA} - \alpha l\sqrt{2}\,\Delta t = 0$$

$$\Rightarrow R = \frac{\alpha\sqrt{2}\,\Delta t\, EA}{2+2\sqrt{2}}$$

4)





$$N_1 = \frac{\alpha\Delta t\, EA}{2+2\sqrt{2}}$$

$$N_2 = \frac{\alpha\Delta t\, EA}{2+2\sqrt{2}}$$

$$N_3 = \frac{\alpha\Delta t\, EA}{2+2\sqrt{2}}$$

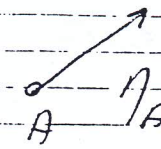
$$N_4 = \frac{\alpha\Delta t\, EA}{2+2\sqrt{2}}$$

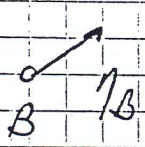
$$N_5 = -\frac{\alpha\Delta t\, EA\sqrt{2}}{2+2\sqrt{2}}$$

$$N_6 = -\frac{\alpha\Delta t\, EA\sqrt{2}}{2+2\sqrt{2}}$$

$$N_7 = 0$$

Osservazioni

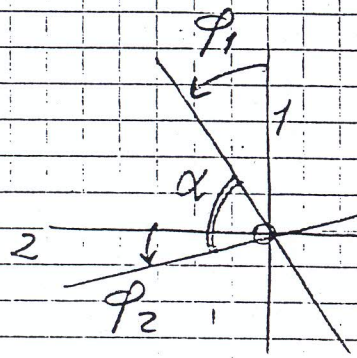




$\Delta\eta_{AB} = \eta_A - \eta_B$

Per $\Delta\eta_{AB} > 0$ si ha allontanamento del mod.

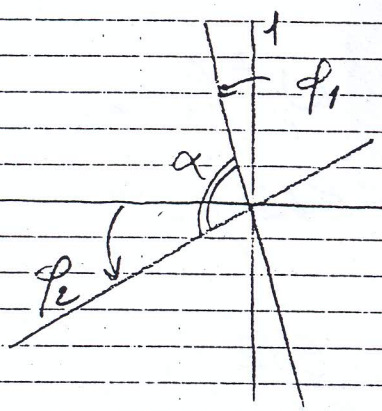
Per $\Delta\eta_{AB} < 0$ si ha avvicinamento del mod.



$\Delta\varphi_{12} = \varphi_1 - \varphi_2$

Se è $\varphi_1 > \varphi_2 \rightarrow \Delta\varphi_{12} > 0$

Le fessure ruotano in modo da formare un angolo acuto α



Se è $\varphi_1 < \varphi_2 \rightarrow \Delta\varphi_{12} < 0$

Le fessure ruotano in modo da formare un angolo ottuso α