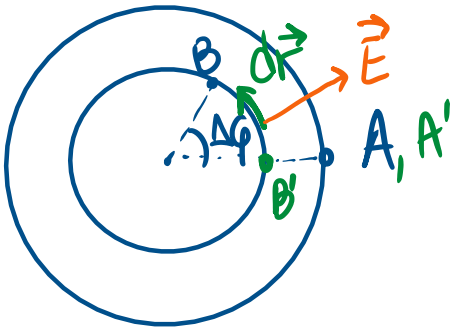
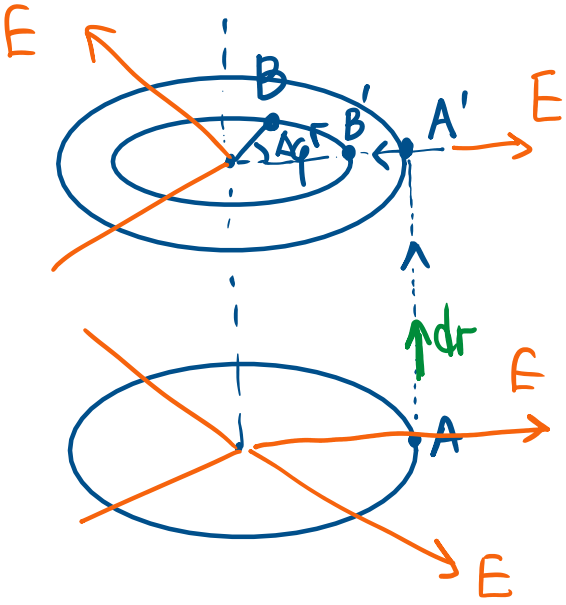
Ε: επίπεδα αντίνιυο

Κύκλοι διαφέρουν κατά Δz



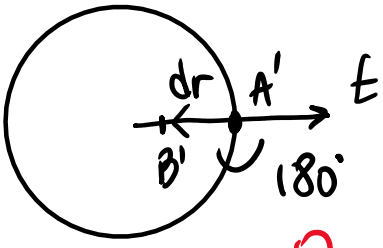
ΚΑΤΟΨΗ



διαδρομή $AB = AA' + A'B' + B'A$

$A'B'$: κατακόρυφα — $B'A$: αντίνιυά — AA': κυκλική (τόξο)

AA'	γωνία	$d\vec{r}, \vec{E}$	$\pi/2$	$\vec{E}\cdot d\vec{r} = 0$
$A'B'$	-11-	$d\vec{r}, \vec{E}$	π	
BB'	γωνία	$d\vec{r}, \vec{E}$	$\pi/2$	$\vec{E}\cdot d\vec{r} = 0$



$$\int_A^B \vec{E}\cdot d\vec{r} = \int_{AA'} \vec{E}\cdot d\vec{r} + \int_{A'B'} \vec{E}\cdot d\vec{r} + \int_{B'B} \vec{E}\cdot d\vec{r}$$

($\int_{AA'}$ και $\int_{B'B}$: 0)

$$= \int_{A'B'} E\,dr\cos 180^\circ$$

$$= \int_{A'B'} E dr \cos 180^\circ$$

$$-1$$

$$\Delta V = -\int_A^B \vec{E}\cdot d\vec{r} = \int_{A'}^{B'} E dr = 2k\lambda \int \frac{1}{r} dr =$$

$$2k\lambda (\ln r_B - \ln r_A)$$