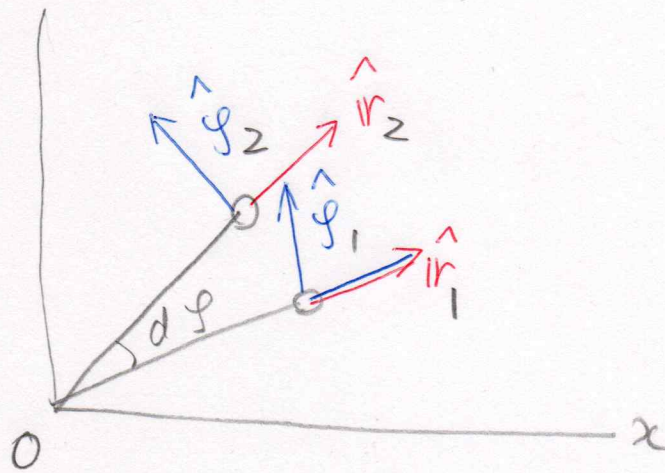


No Change by dr

So $\hat{r} = \hat{r}(\varphi)$, $\hat{\varphi} = \hat{\varphi}(\varphi)$
only φ matters.



$$d\hat{r} = \hat{r}_2 - \hat{r}_1 = \hat{\varphi} d\varphi$$

$$d\hat{\varphi} = \hat{\varphi}_2 - \hat{\varphi}_1 = -\hat{r} d\varphi$$

$$\mathbf{r} = r \hat{r}$$

$$\hat{r} = \frac{\mathbf{r}}{r}$$

