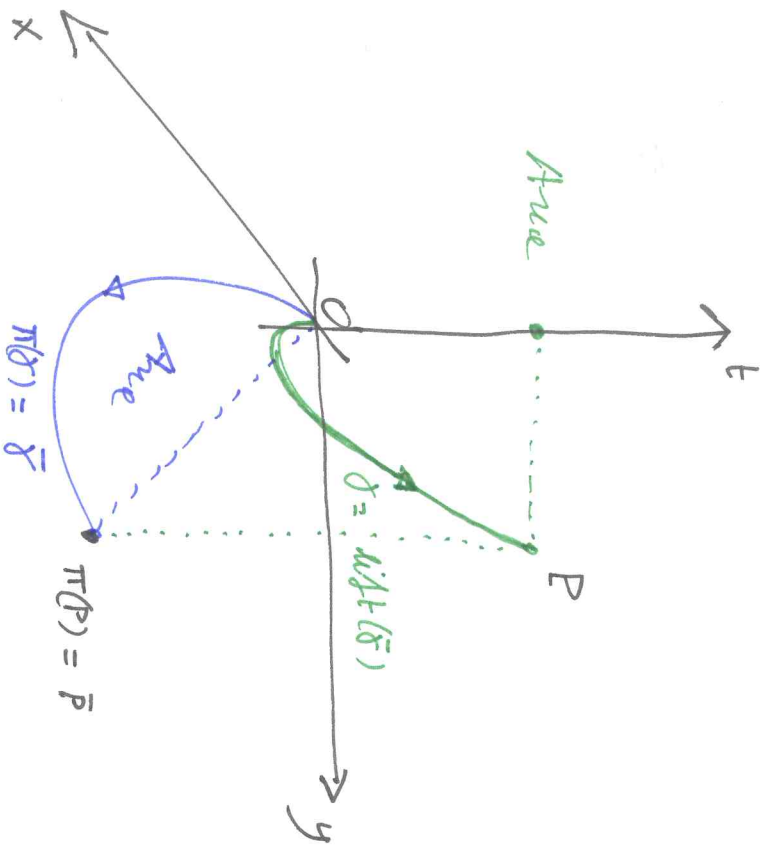


Geodesics:

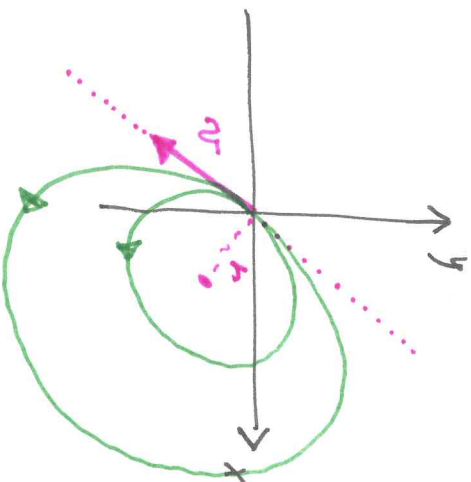
- They are horizontal curves
- They are projecting to circles;
- They are length minimizing along the length of the circle.



length( $\gamma$ ) = Euc-length( $\pi(\gamma)$ )

geodesic between 0 and P:

given  $A_{tue}$  and  $O\bar{P}$   
 find  $\bar{\gamma}$  in  $\mathbb{R}^2$  joining  $O$  and  $\bar{P}$   
 making  $\gamma_{tue}$  the  $A_{tue}$  with  $O\bar{P}$   
shortest with the above:  
 DIDO's problem.



Ball of radius R in  $\mathbb{H}$

