

# Plan for next two weeks

no canceled lectures

worksheet  
rollercoasters →  
no worksheet →  
discussion review

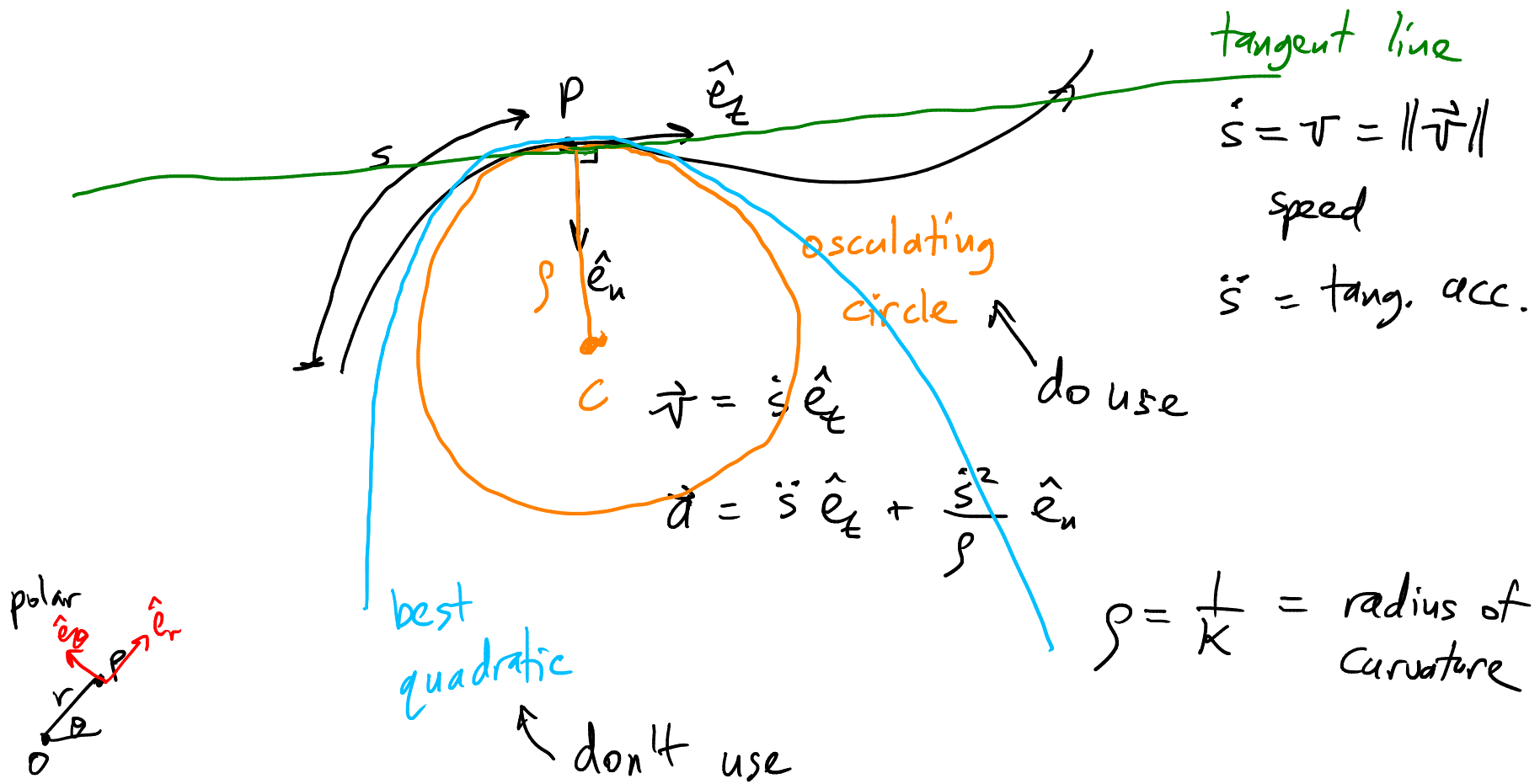
M	T	W	R	F
				8
(Hw)		(Hw)		(Hw)
11 practice				15 conflict deadline
review 18		20	21	22
(Hw)		(Hw)	(F)	(Hw)

← Hw 4 due  
no new Hw

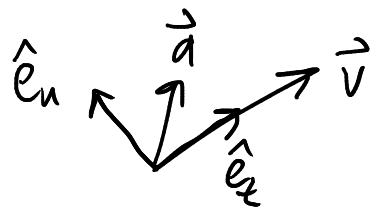
← conflict  
sign up  
week

← Hw 5 released

## Tangential / Normal Basis



## TN in 3D

 $\hat{e}_t, \hat{e}_n, \hat{e}_b$  right handed basis

$$\hat{c}_t = \text{velocity dir} \quad \hat{c}_t = \hat{v}$$

$$\hat{e}_n = \text{remaining acc. dir} \quad \hat{e}_n = \hat{d}_n$$

$$\hat{e}_b = \hat{e}_t \times \hat{e}_n \quad \text{binormal unit vector}$$