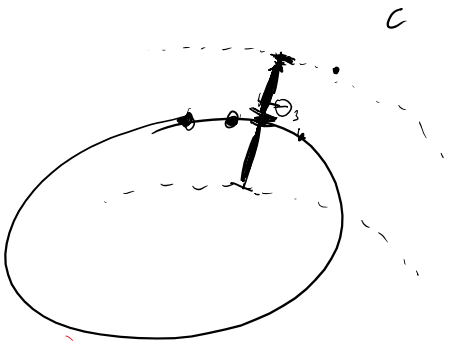
Project Notes

Saturday, November 3, 2018 9:11 PM

+ control inputs
  - throttle
    - wheel rotation rate?
    - wheel torque?
    - x - accel
  - steering angle



+ parametric track
  - B-spline
  - $\Delta\Theta \propto \Delta$arclength
    - solve for optimal knot lengths?

+ simulation

  ODE thats desribes the car

  $\frac{\partial s}{\partial t} = f(s, \delta)$ s = states, δ = control inputs

  $\rightarrow \hat{y}_{i+1} = y_i + \Delta t f_i$

+ linearized equation for models

+ relate position x, y to the track, θ, e_y, e_θ, e_L

+ tire models
  - how do these fit into optimization problem?

+ formulate optimization probelem