

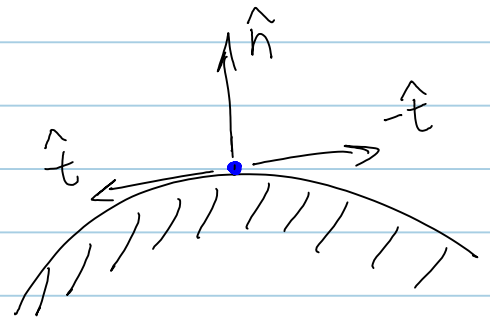
LCP1

Monday, February 21, 2011
7:46 AM

1. Consider a particle in the plane moving in contact with a fixed obstacle.

Determine the physical interpretations (sliding left, sliding right, sticking,

degenerate sliding, degenerate sticking) of the eight generic solutions of the friction model given by:



$$0 \leq \lambda_f \perp G_f^T v + 1s \geq 0$$

$$0 \leq s \perp \mu \lambda_n - 1^T \lambda_f \geq 0$$

where λ_{f_1} is in the \hat{t} direction

λ_{f_2} is in the $-\hat{t}$ direction