Title

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ABSTRACT H_∞

INDEX TERMS keywords

I. INTRODUCTION

WITH test cite 1 [**?**]. The contributions of this study are described as follows:

1) contribution 1
2) contribution 2

The study is organized as follows. In Section II, ...
Notation 1:
Notation 2:

II. PRELIMINARIES OF UAV AND BIPED ROBOT
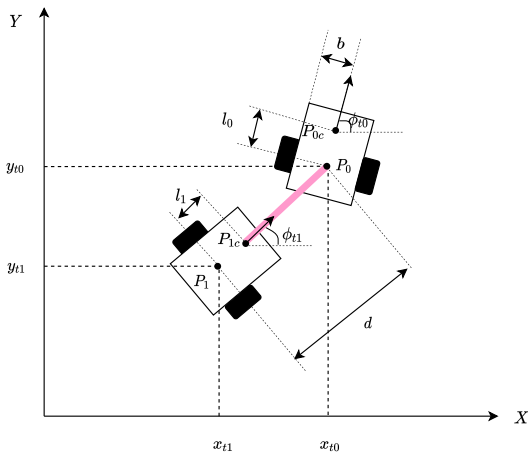
In this study, ...

A. UAV

FIGURE 1: tractor-trailer test

Assumption II.A.1: Assumption
Assumption II.A.2: The inertia matrix $M_t(\cdot)$

$$X_t(t) = [x_{t,1}(t) \ y_{t,1}(t) \ \phi_{t,1}(t) \ \phi_{t,0}(t)]^T \quad (1)$$

$$A_t(X_t(t))\dot{X}_t(t) \quad (2)$$

$$= \begin{bmatrix} \sin\phi_{t,0}(t) & \sin\phi_{t,1}(t) \\ -\cos\phi_{t,0}(t) & -\cos\phi_{t,1}(t) \\ -d\cos(\phi_{t,0}(t)-\phi_{t,1}(t)) & 0 \\ 0 & 0 \end{bmatrix}^T$$

$$\times \begin{bmatrix} \dot{x}_{t,1}(t) \\ \dot{y}_{t,1}(t) \\ \dot{\phi}_{t,1}(t) \\ \dot{\phi}_{t,0}(t) \end{bmatrix} = 0$$

Remark 1: remark test
Lemma 1: ([**?**]) For any matrix X and Y with appropriate dimensions, the following inequality holds:

$$X^T Y + Y^T X \le X^T P^{-1} X + Y^T P Y \quad (3)$$

where P is any positive definite symmetric matrix.
Theorem 1: therom test
Proof. proof test ∎