

Theoretical and Experimental Study of Adaptive Control for Fixed-wing UAV Arrested Recovery on the USV

Lingling Chu and Feng Gu

Shenyang Institute of Automation, Chinese Academy of Sciences, China

Yuqing He

Shenyang Institute of Automation, Chinese Academy of Sciences, China

- Shipborne recovery of fixed-wing UAV is an important technology for UAV.
- An adaptive control method combined **with LPV model** and **$\alpha - \beta$ filter** for fixed-wing UAV arrested recovery.
- Flight experiments under different conditions are completed to verify the performance of the controller.
- The UAV with the proposed method can satisfy the requirements of recovery on the USV.



Recovery of UAV on USV
in real environment