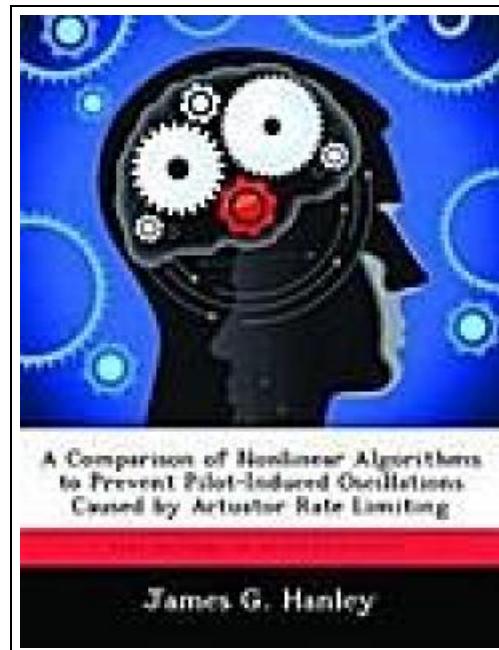


## A Comparison of Nonlinear Algorithms to Prevent Pilot-Induced Oscillations Caused by Actuator Rate Limiting



Filesize: 2.77 MB

### ***Reviews***

*This written ebook is wonderful. This is certainly for anyone who statte there was not a really worth studying. You may like how the author compose this pdf.*

***(Odessa Graham)***

## A COMPARISON OF NONLINEAR ALGORITHMS TO PREVENT PILOT-INDUCED OSCILLATIONS CAUSED BY ACTUATOR RATE LIMITING

[DOWNLOAD PDF](#)

Biblioscholar Okt 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x7 mm. This item is printed on demand - Print on Demand Neuware - Actuator rate limiting has contributed to Pilot-Induced Oscillations (PIO) on almost every new fly-by-wire aircraft. Actuator rate limiting affected aircraft handling qualities in two ways: it exposed the aircraft's unaugmented flight dynamics and shifted the phase between the pilot input and actuator output. Phase shifting was the primary cause of PIO due to rate limiting. Two proposed solutions both placed a flight control system filter between the pilot command and actuator input. The first, referred to as Feedback-with- Bypass (FWB) and developed by Dr. Lars Rundqwist of SAAB Aircraft, used a low-pass filter to add phase lead to the pilot command. The second, referred to as Derivative- Switching (DS) and developed by Dr. Brad Liebst and Capt. Mike Chapa of AFIT, used the first and second derivatives of the pilot's command to reverse the actuator output in phase with the pilot input during actuator rate limiting. The objective of this study was to compare the ability of these two flight control system filters to prevent PIO during actuator rate limiting, and the filters' effects on aircraft handling qualities. 110 pp. Englisch.



[Read A Comparison of Nonlinear Algorithms to Prevent Pilot-Induced Oscillations Caused by Actuator Rate Limiting Online](#)



[Download PDF A Comparison of Nonlinear Algorithms to Prevent Pilot-Induced Oscillations Caused by Actuator Rate Limiting](#)

## Other PDFs

**A Dog of Flanders: Unabridged; In Easy-to-Read Type (Dover Children's Thrift Classics)**

Dover Publications, 2011. Paperback. Book Condition: New. No Jacket. New paperback book copy of A Dog of Flanders by Ouida (Marie Louise de la Ramee). Unabridged in easy to read type. Dover Children's Thrift Classic...

[Download Document »](#)

**Pickles To Pittsburgh: Cloudy with a Chance of Meatballs 2**

Atheneum Books for Young Readers, 2000. Paperback. Book Condition: New. No Jacket. New paperback print book copy of Pickles to Pittsburgh: Cloudy with a Chance of Meatballs 2 written by Judi Barrett. Drawn by Ron...

[Download Document »](#)

**Your Pregnancy for the Father to Be Everything You Need to Know about Pregnancy Childbirth and Getting Ready for Your New Baby by Judith Schuler and Glade B Curtis 2003 Paperback**

Book Condition: Brand New. Book Condition: Brand New.

[Download Document »](#)

**A Tale of Two Cities (Dover Thrift Editions)**

Dover Publications. PAPERBACK. Book Condition: New. 0486406512 12+ Year Old paperback book-Never Read-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I ship FAST...

[Download Document »](#)

**A Tale of Two Lesbians**

Createspace, United States, 2015. Paperback. Book Condition: New. 203 x 127 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Lucy Winters was an orphan since her parents passed away the year before...

[Download Document »](#)