

## SELECTED PUBLICATION OF TUAN D HOANG

### Journal Articles

1. A. Pasha, B. Vo, H.D. Tuan, "Linear jump Markov PHD filter and multi-target tracking problem", *Submitted*
2. P.T. Khoa, H.D. Tuan, H. Tuy, "Monotonic optimization based decoding for linear codes", *Submitted*
3. H.D. Tuan, D.H. Pham, B. Vo, "Information rate based optimal precoder and decoder for MIMO communication" *Submitted*
4. H.H. Pham, H.D. Tuan, B. Vo, "Jointly optimal precoding and postcoding for colored multiple input multiple output", *Submitted*
5. T.Q. Hung, H.D. Tuan, B. Vo, T.Q. Nguyen, "SDP for 2-D filter design: general formulation and dimension reduction techniques", *Submitted*
6. H.H. Kha, H.D. Tuan, B. Vo, T.Q. Nguyen, "Symmetric orthogonal complex-valued filter bank design by semidefinite programming", *Submitted*
7. H.G. Hoang, H.D. Tuan, B. Vo, "Beam pattern synthesis for large array antenna arrays using semi-definite programming", *Submitted*
8. N.V.Q. Hung, H.D. Tuan, T. Narikyo, P. Apkarian, Adaptive controls for nonlinearly parameterized uncertainties in robot manipulators, to appear in *IEEE Trans. on Control System Technology*
9. H. D. Tuan , T.T. Son, B. Vo, T.Q. Nguyen, " Efficient large-scale filter/filterbank design via LMI characterization of trigonometric curves", to appear in *IEEE Trans. on Signal Processing*
10. H. D. Tuan, T.T. Son, T.Q. Nguyen, " Low-order IIR filter bank design", to appear in *IEEE Trans. on Circuits and Systems I*
11. N.T. Hoang, H.D. Tuan, T.Q. Nguyen, S. Hosoe, "Robust filtering for 2D non-linear fractional transformation systems", to appear in *IEEE Trans. on Signal Processing*.
12. P. Apkarian, D. Noll, J-B. Thevenet, H.D. Tuan ( $5H_2$  and  $H_\infty$  synthesis, *European Journal of Control* 10(2004), 527-538.
13. H.D. Tuan, T.T. Son, H. Tuy, "New Linear Programming Based Filter Design", *IEEE Trans. on Circuit and Systems II: digital signal processing* 52(2005), 276-281.
14. N.T. Hoang, H.D. Tuan, P. Apkarian, S. Hosoe, "Gain-scheduling filtering for time-varying digital systems", *IEEE Trans. on Signal Processing* 52(2004), 2464-2476.

15. N.T. Hoang, H.D. Tuan, P. Apkarian, S. Hosoe, "Robust filtering for nonlinear fractional transformation systems", *IEEE Trans. on Circuit and Systems II: digital signal processing* 51(2004), 587-592.
16. K. Yokoi, N.V.Q. Hung, H.D. Tuan, S. Hosoe, "Adaptive control design for n-th order nonlinearly multiplicative parameterized systems with triangular structure and applications", *Transactions of SICE* 39(2004), 1099-1107
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18. H.D. Tuan, P. Apkarian, T. Narikiyo, M. Kanota, "New fuzzy control model and dynamic output feedback parallel distributed compensation", *IEEE Trans. on Fuzzy Systems* 12(2004), 13-21.
19. P. Apkarian, D. Noll, H.D. Tuan, "Fixed-order  $H_\infty$  control design via a partially augmented Lagrangian method", *Int. J. of Nonlinear Robust Control* 13(2003), 1137-1148.
20. H.D. Tuan, P. Apkarian, T.Q. Nguyen, "Robust filtering for uncertain nonlinearly parameterized plants", *IEEE Trans. on Signal Processing* 51(2003), 1806-1815.
21. N.V.Q. Hung, T. Narikiyo, H.D. Tuan, "Nonlinear adaptive control of master-slave system in teleoperation", *Control Engineering Practice* 11(2003), 1-10.
22. H.D. Tuan, P. Apkarian, T.Q. Nguyen, T. Narikiyo, "Robust mixed  $\mathcal{H}_2/\mathcal{H}_\infty$  filtering of 2-D systems", *IEEE Trans. Signal Processing* 50(2002), 1759-1771.
23. H.D. Tuan, P. Apkarian, "Monotonic relaxations for robust control: new characterizations", *IEEE Trans. Automatic Control* 47(2002), 378-384.
24. P. Pellanda, P. Apkarian, H.D. Tuan, "Missile autopilot design via a multi-channel LFT/LPV control method", *Int. J. Robust Nonlinear Control* 12(2002), 1-20.
25. P. Apkarian, H.D. Tuan, J. Bernussou, "Continuous-time analysis and  $H_2$  multi-channel synthesis with enhanced LMI characterizations", *IEEE Trans. Automatic Control* 46(2001), 1941-1946.
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28. H.D. Tuan, E. Ono, P. Apkarian, S. Hosoe, "Nonlinear  $\mathcal{H}_\infty$  control for an integrated suspension system via parameterized linear matrix inequality characterizations", *IEEE Trans. Control System Technology* 9(2001), 175-185.

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37. H.D. Tuan, "Remarks on a global optimization algorithm for  $\mathcal{H}_\infty$  control", *IEEE Transactions on Automatic Control* 45(2000), 1925-1926.
38. H.D. Tuan, S. Hosoe, "Multivariable circle criteria for multiparameter singularly perturbed systems", *IEEE Transactions on Automatic Control* 45(2000), 720-725.
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47. H.D. Tuan, "Can linear programming be used to test global optimization algorithms?", *Computing* 59(1997), 91-93.
48. H.D. Tuan, S. Hosoe, "On robust and  $\mathcal{H}_\infty$  controls for a class of linear and bilinear systems with uncertainty", *Automatica* 33(1997), 1373-1377.
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58. H.D.Tuan, "On controllability and extremality in nonconvex differential inclusions", *J. of Optimization Theory and Applications* 85(1995), 435-472.

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60. H.D.Tuan, "On local controllability of hyperbolic inclusions", *Journal of Mathematical Systems, Estimation and Control* 4(1994), 319-339.
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#### Refereed Conference Papers

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2. H.G. Hoang, B. Vo, H.D. Tuan, T.T. Son, Mask constrained beam pattern synthesis for large arrays, *Proc. of the 8-th International Conference on Signal Processing and its applications (ISSPA)*, 2005, Sydney, Australia.
3. H.D. Tuan, T.T. Son, B. Vo, T.Q. Nguyen, LMI characterization for the convex hull of trigonometric curves and applications, *Proc. of 2005 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Philadelphia, March 2005.
4. N.T. Hoang, H.D. Tuan, P. Apkarian, S. Hosoe, "A new design of analog filters via convex programming", *Proc. of 24th IASTED International conference on Modeling, Identification, and Control*, Innsbruck, Austria, 2005.

5. P. Apkarian and D. Noll and H.D. Tuan, A spectral quadratic-SDP method with applications to fixed-order  $H_2$  and  $H_\infty$  synthesis ", *Proc. of 5 Asian Control Conference*, Melbourne, 2004.
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