

**Refereed Journal Publications:**

R. Goebel, A. Teel, T. Hu, and Z. Lin, *Conjugate convex Lyapunov functions for dual linear differential inclusions*, to appear in IEEE Transactions on Automatic Control.

R. Goebel, *Stabilizing a linear system with saturation through optimal control*, to appear in IEEE Transactions on Automatic Control.

R. Goebel, *Duality and uniqueness of convex solutions to stationary Hamilton-Jacobi equations*, Transactions of the AMS, Volume 357, 2005, 2165-2186.

R. Goebel, *Convex optimal control problems with smooth Hamiltonians*, SIAM Journal of Control and Optimization, Volume 43, Number 5, 2005, 1787-1811.

J. Borwein and R. Goebel, *On the nondifferentiability of cone-monotone functions in Banach spaces*, to appear in Optimization: Structure and Applications, E. Hunt and C.E.M. Pearce editors, Applied Optimization Series, Kluwer Academic Publishers.

R. Goebel, *Regularity of the optimal feedback and the value function in convex problems of optimal control*, Set-Valued Analysis, Volume 12, Issue 1-2, 2004, 127-145.

J. Borwein and R. Goebel, *Notions of relative interior in Banach spaces*, Journal of Mathematical Sciences, Volume 115, Issue 4, 2003, 2542-2553.

R. Goebel, *Planar generalized Hamiltonian systems with large saddle sets*, Journal of Nonlinear and Convex Analysis, Volume 3, Number 3, 2002, 365-380.

R. Goebel and R.T. Rockafellar, *Generalized conjugacy in Hamilton-Jacobi theory for fully convex Lagrangians*, Journal of Convex Analysis, Volume 9, Number 1, 2002, 463-473.

R. Goebel, *Convexity in zero-sum differential games*, SIAM Journal on Control and Optimization, Volume 40, Number 5, 2002, 1491-1504.

R. Goebel, *Sufficient condition for stability of an  $L^2$ -angle*, Bulletin of the Polish Academy of Science, Vol 45, No 3, 1997, 227-232.

**Submitted Contributions:**

R. Goebel and M. Subbotin, *Continuous Time Constrained Linear Quadratic Regulator – Convex Duality Approach*, submitted March 2005.

T. Hu, A. Teel, R. Goebel, and Z. Lin, *Conjugate Lyapunov functions for saturated linear systems*, submitted November 2004.

R. Goebel and A. Teel, *Solutions to hybrid inclusions via set and graphical convergence with stability theory applications*, submitted August 2004.

**Refereed Conference Proceedings Contributions:**

R. Goebel and M. Subbotin, *Continuous time constrained Linear Quadratic Regulator – convex duality approach*, to appear in Proceedings of the American Control Conference 2005.

R. Sanfelice, R. Goebel, and A. Teel, *Results on convergence in hybrid systems via detectability and an invariance principle*, to appear in Proceedings of the American Control Conference 2005.

C. Cai, A. Teel, and R. Goebel, *Converse Lyapunov theorems and robust asymptotic stability for hybrid systems*, to appear in the Proceedings of the American Control Conference 2005.

R. Goebel and A. Teel, *Results on solution sets to hybrid systems with applications to stability theory*, to appear in the Proceedings of the American Control Conference 2005.

R. Goebel, A. Teel, T. Hu, and Z. Lin, *Dissipativity for dual linear differential inclusions through conjugate storage functions*, Proceedings of the 43rd IEEE Conference on Decision and Control, 2004.

T. Hu, Z. Lin, R. Goebel, and A. Teel, *Stability regions for saturated linear systems via conjugate Lyapunov functions*, Proceedings of the 43rd IEEE Conference on Decision and Control, 2004.

R. Goebel, *Stabilizing linear systems with saturation through optimal control*, Proceedings of the 43rd IEEE Conference on Decision and Control, 2004.

R. Goebel, J. Hespanha, A. Teel, C. Cai, and R. Sanfelice, *Hybrid systems: generalized solutions and robust stability*, 6th IFAC Symp. on Nonlinear Contr. Systems, 2004.

D. Dačić, R. Goebel, and P. Kokotović. *A factorization approach to  $C^1$  stabilization of nonlinear triangular systems*, Proceedings of the 42nd IEEE Conference on Decision and Control, Maui, 2003.

R. Goebel, *Stationary Hamilton-Jacobi equations for convex control problems — uniqueness and duality of solutions*, Optimal Control, Stabilization, and Nonsmooth Analysis; de Queiroz, M., M. Malisoff, and P. Wolenski, Editors; Lecture Notes in Control and Information Sciences, Springer-Verlag, 2004, 313–322.

R. Goebel, *Hamiltonian dynamical systems for convex problems of optimal control: Implications for the Value Function*, Proceedings of the 41st IEEE Conference on Decision and Control, Las Vegas, Volume 1, 2002, 728–732.

R. Goebel, *Convexity in zero-sum differential games*, Proceedings of the 41st IEEE Conference on Decision and Control, Las Vegas, Volume 4, 2002, 3964–3969.

**Other Contributions:**

R. Goebel, *Convexity, Convergence and Feedback in Optimal Control*, Doctoral Dissertation, Department of Mathematics, University of Washington, 2000.

R. Goebel, *Convexity and Hamiltonian equations in differential games*, Interim Report, International Institute for Applied Systems Analysis, August 1998.

R. Goebel, *On the Stability of an  $L^2$ -angle*, Masters Thesis (in Polish), Department of Mathematics, University of Maria Curie-Sklodowska, Lublin, Poland, 1994.