



国立高等専門学校機構
大分工業高等専門学校

氏名	辻 繁樹					
ローマ字 姓(大)名(小)	TSUJI Shigeki					
所属学科	電気電子工学科	職名	准教授			
最終学歴	徳島大学大学院工学研究科情報システム工学専攻博士後期課程修了					
学位	博士 (工学)					
所属学会	IEEE (CAS, CIS) 電子情報通信学会					
研究分野	数理神経科学、システム生物学、非線形力学、数値解析					
研究テーマ	<ul style="list-style-type: none">・神経細胞ダイナミクスの理論研究と工学的応用・細胞システム、疾患の数理モデリング・非線形システムにおける分岐解析・数値計算ソフトウェアの開発					
主な研究業績 (著書、論文等)						
<p>1. 学術論文 (査読あり)</p> <p>[1] G. Tanaka, S. Tsuji, and K. Aihara, "Grazing-Induced Crises in Hybrid Dynamical Systems," Physics Letters A, Vol.373(35), pp.3134-3139, 2009.</p> <p>[2] A. Tamura, T. Ueta and S. Tsuji, "Bifurcation Analysis of Izhikevich Neuron Model," Dynamics of Continuous, Discrete and Impulsive Systems, Vol.16, No.6, pp.849-862, 2009.</p> <p>[3] G. Tanaka, K. Tsumoto, S. Tsuji, and K. Aihara, "Bifurcation Analysis on a Hybrid Systems Model of Intermittent Hormonal Therapy for Prostate Cancer," Physica D, Vol.237, pp.2616-2627, 2008.</p> <p>[4] S. Tsuji, T. Ueta and H. Kawakami, H. Fujii and K. Aihara, "Bifurcations in Two-dimensional Hindmarsh-Rose Type Model," International Journal of Bifurcation and Chaos, Vol. 17, No. 3, pp. 985-998, 2007.</p> <p>[5] S. Tsuji, T. Ueta and H. Kawakami, "Bifurcation Analysis of Current Coupled BVP Oscillators," International Journal of Bifurcation and Chaos, Vol. 17, No. 3, pp. 837-850, 2007.</p> <p>[6] S. Tsuji, T. Ueta, H. Kawakami and K. Aihara, "A Design Method of Bursting using Two-Parameter Bifurcation Diagrams in FitzHugh-Nagumo Model," International Journal of Bifurcation and Chaos, Vol. 14, No. 7, pp. 2241-2252, 2004.</p>						



国立高等専門学校機構
大分工業高等専門学校

2. 国際会議（査読あり）

- [1] G. Tanaka, S. Tsuji, K. Aihara, "Grazing-induced Crisis of a Chaotic Attractor in Hybrid Dynamical Systems," Dynamics Days 2009, Jan., 2009.
- [2] A. Tamura, T. Ueta, and S. Tsuji, "Bifurcation analysis of Izhikevich model," 2008 International Symposium on Nonlinear Theory and its Applications (NOLTA2008), pp.424-427, Sep., 2008.
- [3] G.Tanaka, S. Tsuji, and K. Aihara, "Effects of noise on a hybrid systems model of intermittent hormonal therapy for prostate cancer," International Conference on Stochastic Resonance 2008, pp. 47, Aug., 2008.
- [4] A. Tamura, T. Ueta, and S. Tsuji, "Bifurcation of Izhikevich model with state-dependent jump," IEEE CASS Shikoku and Shanghai Chapters Joint Workshop on Nonlinear Circuits and Systems (SSJW'08), pp.52, Aug., 2008.
- [5] T. Ueta, T. Kousaka, and S. Tsuji, "Occasional delayed feedback control for switched autonomous systems," 2007 IEEE International Symposium on Circuits and Systems(ISCAS2007), May, 2007.
- [6] T. Kobayashi, S. Tsuji, and K. Aihara, "What makes biological oscillators noisy?," The Seventh International Conference on Systems Biology (ICSB2006).
- [7] S. Tsuji, T. Ueta, H. Kawakami and K. Aihara, "Dependence of synchronous activities in coupled inhibitory neurons upon excitability classes," 2006 International Symposium on Nonlinear Theory and its Applications (NOLTA2006), pp. 747-750, Sep., 2006.
- [8] S. Tsuji, T. Ueta, H. Kawakami, and K. Aihara, "Synchronization and bifurcation phenomena in inhibitory neurons with gap-junction," 2006 IEEE/NLM Life Science Systems and Applications Workshop (LSSA'06), pp. 140-141, Jul., 2006.
- [9] T. Kumano, M. Mizumoto, Y. Nishiuchi, K. Tsumoto, S. Tsuji, T. Ueta, T. Yoshinaga, H. Kawakami, and K. Aihara, "Development of an ODE solver orienting a bifurcation analysis package," 2006 RISP International Workshop on Nonlinear Circuits and Signal Processing (NCSP'06), pp. 297-300, Mar., 2006.

学術関係の受賞歴

RISP International Workshop on Nonlinear Circuits and Signal Processing
Student Paper Award (2004)

社会活動

技術相談・協力できるテーマ

研究分野及び研究テーマに関すること