Dr Sabir JACQUIR

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Professional Biography	o 2007 : Master Lecturer, University of Burgundy, Department of Electronics, Computer Sciences and Mechanics. o 2006 - 2007 : Post-doc Internship, INRIA Sophia Antipolis, ODYSSEE and DEMAR Laboratories. o 2003 - 2006 : Temporary Lecturer, University of Burgundy, Department of Electronics, Computer Sciences and Mechanics
Education	o 2006 : PhD in Sciences, University of Burgundy. o 2003 : Master's Degree in Research in Instrumentation and Signal Processing, University of Burgundy. o 2002 : Master's and Bachelor's Degrees in Electrical Engineering and Industrial Computer Science, University of Burgundy. o 1999 : Degree in Chemical and Biological Sciences, University of Burgundy.
Expertises	o Acquisition and signal processing o Electronic systems o Mathematical modelling of biological systems (firing cardiac cells and neurons) o Theory of dynamical systems
Teaching	o Electronics (analogical and digital) o Mathematical tools for signal processing o Design of electronic circuits o Data acquisition and treatment o Waves propagation o Electrical engineering

Skills	o *Systems* : Windows, UNIX/Linux o *Programming Languages* : Matlab, Scilab, Labview, VHDL. o *Mathematical Software* : Maple, Mathematica. o *Electronic conception tools* : Mentor Graphics (Design Architect, Accusim, Quicksim II), TCI. o *Word processing* : Latex, MS Office.
Publications	° "*Emergence of travelling waves in smooth nerve fibres*", Sabir JACQUIR, Stéphane BINCZAK, Jean Paul GAUTHIER, Jean-Marie BILBAULT, J. of Discrete and Continuous Dynamical Systems (in press), 2007. ° "*Experimental study of electrical FitzHugh-Nagumo neurons with modified excitability*", Stéphane BINCZAK, Sabir JACQUIR, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, Neural Networks, Elsevier, 19, pp. 684-693, 2006. ° "*Synaptic coupling between two electronic neurons*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, Nonlinear Dynamics Journal, Kluwer-Springer, 44, pp. 29-36, 2006. ° "*Dependance on the phospholipid polyunsaturated fatty acids of the oxidative injury of isolated cardiomyocytes*", Isabelle DUROT, Lisa DEVILLARD, Cindy TISSIER, David VANDROUX, Sophie VOISIN, Sabir JACQUIR, Luc ROCHETTE, Pierre ATHIAS, Free Radical Research, Taylor & Francis Group, 40 (3), pp. 251-261, 2006. ° "*A Theorectical Approach of the Propagation through Geometrical Constraints in Cardiac Tissue*", Sabir JACQUIR, Stéphane BINCZAK, Pierre ATHIAS, Jean-Marie BILBAULT, International Journal of Bifurcation and Chaos (in press), 2006. ° "*Analytical determination of initial conditions leading to firing in nerve fibers*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, International Journal of Bifurcation and Chaos (in press), 2006. ° "*Spiking dynamics of interacting oscillatory neurons*", Victor KAZANTZEV, Vladimir NEKORKIN, Stéphane BINCZAK, Sabir JACQUIR, Jean-Marie BILBAULT, Chaos, 15 (1), 2005. ° "*Reaction-diffusion electrical network for image processing*", Jean-Marie BILBAULT, Stéphane BINCZAK, Sabir JACQUIR, Tadeusz SLIWA, Proc. of SPIE, SPIE, 5975, pp. 59750W, 2005.
International conferences	° "*Excitation spread in cardiac myocyte cultures using paired microelectrode and microelectrode array recordings*", Pierre ATHIAS, Sabir JACQUIR, Cindy TISSIER, David VANDROUX, Stéphane BINCZAK, Jean-Marie BILBAULT, Matthieu ROSSE, XIX World Congress of the ISHR Bologna (Italy),22-26 June

2007, "Journal of Molecular and Cellular Cardiology", 42: S3.

° "*Identification of unknown functions in dynamic systems*", Eric BUSVELLE, Jean Paul GAUTHIER, Stéphane BINCZAK, Sabir JACQUIR, 17th International Symposium on Mathematical Theory of Networks and Systems, MTNS 2006, Kyoto, Japon, pp. 2157-2162, July 2006.

° "*Neural computation from cell to small networks*", Stéphane BINCZAK, Sabir JACQUIR, Jean Paul GAUTHIER, Jean-Marie BILBAULT, AIMS' Sixth International Conference on Dynamical Systems, Differential Equations and Applications, AIMS 2006, Poitiers, France-pp 125, June 2006.

° "*Influence of Geometrical Constraints on Propagation in Cardiac Tissue*", Sabir JACQUIR, Stéphane BINCZAK, Gabriel LAURENT, Pierre ATHIAS, Jean-Marie BILBAULT, 32nd IEEE International Conference on Computers in Cardiology , IEEE proceedings , Lyon, France, 32, pp. 647-650, September 2005.

° "*Analytical determination of initial conditions leading to firing in nerve fibers*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, 13th International IEEE Workshop on Nonlinear Dynamics of Electronic Systems, NDES 2005, University of Potsdam, Potsdam, Germany, September 2005.

° "*Influence of the tissu geometry on the impulse propagation in cardiac cells*", Sabir JACQUIR, Stéphane BINCZAK, Pierre ATHIAS, Jean-Marie BILBAULT, NWP 2005 (International symposium on Topical problems of Nonlinear Wave Physics), RAS Edt , Nizhny-Novgorod-Moscow , Russia , pp. 37-38, 2 August 2005.

° "*On the Firing in Reaction-Diffusion Systems (Invited conference)*", Stéphane BINCZAK, Sabir JACQUIR, Jean Paul GAUTHIER, Jean-Marie BILBAULT, From Quanta to Life, Honoring the contributions by Willi-Hans Steeb to the world of Mathematics & Physics, Klosters, Switzerland, 18-22 December 2005.

° "*Experimental study of electrical MFHN neurons*", Stéphane BINCZAK, Sabir JACQUIR, Olivier TARLET, Jean-Marie BILBAULT, Proceedings of XIX Conference on Design of Circuits and Integrated Systems , ISBN 2-9522971-0-X, Bordeaux, FRANCE, pp. 293-298, 24 November 2004.

° "*Influence of the tissu geometry on the impulse propagation in cardiac cells*", Sabir JACQUIR, Stéphane BINCZAK, Pierre ATHIAS, Jean-Marie BILBAULT, NWP 2005 (International symposium on Topical problems of Nonlinear Wave Physics), RAS Edt , Nizhny-Novgorod-Moscow , Russia , pp. 37-38, 2 August 2005.

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	of Mathematics & Physics, Klosters, Switzerland, 18-22 December 2005. ° "*Experimental study of electrical MFHN neurons*", Stéphane BINCZAK, Sabir JACQUIR, Olivier TARLET, Jean-Marie BILBAULT, Proceedings of XIX Conference on Design of Circuits and Integrated Systems , ISBN 2-9522971-0-X, Bordeaux, FRANCE, pp. 293-298, 24 November 2004. ° "*Unilateral coupling between two MFHN electronic neurons*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, Proceedings of BICS2004 (International Conference on Brain Inspired Cognitive Systems), Stirling, United Kingdom, BIS (5.2), pp. 1-7, August 2004. ° "*Study of electronic master-slave MFHN neurons*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, Proceedings of NDES2004 (International IEEE Workshop on Nonlinear Dynamics of Electronic Systems), Centro de Geofisica de Evora, Evora, Portugal, pp. 182-185, 9 May 2004. ° "*Neuron electronic model with modified FitzHugh-Nagumo equation*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, "Geometry of Distributions and Control Systems" , Banach Center, Varsovie, Pologne, 10 May 2004. ° "*Chaotic regime induced by two electronic neurons in a Master-Slave configuration*", Sabir JACQUIR, Stéphane BINCZAK, Jean-Marie BILBAULT, Victor KAZANTZEV, Vladimir NEKORKIN, Proceedings of SCS2004 (International Conference SCS'2004 : Signaux, Circuits & Systèmes), Masmoudi, Kamoun, Abid and Alimi Edts, Monastir, Tunisia, pp. 227-230, 2004.
Personal interests	o Badminton, cycling, running o hiking, via ferrata, climbing, travels o Movies, reading o Arts