CATS WORKSHOP PROGRAM

Tuesday 2 June 2009	**8:30 - 10:00** **Registration** **10:00 - 10:40** **Opening Ceremony**	**10:40 - 11:30** **CATS Workshop Introductory Session (IS1)**	**11:30 - 12:00** **Coffee Break**	**12:00 - 13:40** **Session 1 (S1)**	**13:40 – 15:00** **Lunch**	**15:00-16:40** **Session 2 (S2)**	**16:40 - 17:00** **Coffee Break**	**17:00 - 18:40** **Session 3 (S3)**
Wednesday 3 June 2009	**9:50 - 11:30** **Session 4 (S4)**		**11:30 - 12:00** **Coffee Break**	**12:00 - 13:40** **Session 5 (S5)**	**13:40 - 15:00** **Lunch**	**15:00 - 15:40** **Session 6 (S6)** **15:40 - 16:00** **Closing of CATS Workshop**		

CATS WORKSHOP PROGRAM

Tuesday 2 June 2009

8:30 - 10:00	Registration
10:00 - 10:40	Opening Ceremony
10:40 - 11:30	CATS Workshop Introductory Session (IS1)
10:40 - 10:55	**IS1.1.** *"Recent developments of the PICASSO project", Prof. Dimitris Syvridis, National Kapodistrian University of Athens, Greece*
10:55 - 11:30	**IS1.2.** *"Semiconductor Laser Chaos: Past, Present, and Future", Prof. Junji Ohtsubo, Shizuoka University, Japan*
11:30 - 12:00	Coffee Break
12:00 - 13:40	Session 1 (S1)
12:00 - 12:20	**S1.1.** *"Experimental study of nonlinear dynamics and chaos in a 1550nm-VCSEL subject to polarized optical injection", Antonio Hurtado, Ana Quince, Luis Pesquera, Angel Valle, Michael J. Adams*
12:20 - 12:40	**S1.2.** *"Computer-aided analysis of the Poincare map for the characterisation of optically-injected semiconductor lasers", C. A. Stolz, D. Labukhin, N. Zakhleniuk, R. Loudon, M. J. Adams*
12:40 - 13:00	**S1.3.** *"Investigations of Coherence Collapse scenarios of Quantum Cascade Lasers", Jan-Eric Nimsch, Jens von Staden, Dominik Blömer, Wolfgang Elsäßer*
13:00 - 13:20	**S1.4.** *"Quantum-Dot InAs/InGaAsP/InP (100) Twin-Stripe Lasers for Secure Encrypted Communication", J. Pozo, A. Corradi, E. Smalbrugge, T. de Vries, M.K. Smit, D. Lenstra, R. Nötzel*
13:20 - 13:40	**S1.5.** *"Chaos generation and communications using integrated sources with an air gap", V.Z.Tronciu, C. Mirasso, P. Colet, M. Hamacher, M. Benedetti, V. Annovazzi-Lodi*
13:40 – 15:00	Lunch
15:00-16:40	Session 2 (S2)
15:00 - 15:40	**IS2.1.** *"Delay electro-optics dynamics: from the investigations of route to chaos, to application in secure communications and radars", Prof. Laurent Larger, University of Franche-Comté, France*
15:40 - 16:00	**S2.1.** *"Investigating the chaotic behaviour of multi-section semiconductor lasers using the transmission line laser model", Dmitry Labukhin, Christopher A. Stolz, Nickolay Zakhleniuk, Rodney Loudon, Michael J. Adams*
16:00 - 16:20	**S2.2.** *"Opto-electronic devices with double feedback loop", Romain Modeste Nguimdo, Pere Colet, Claudio Mirasso*
16:20 - 16:40	**S2.3.** *"Dynamics of electro-optic delay oscillators pumped with two lasers", Romain Modeste Nguimdo, Pere Colet, Yanne Chembo Kouomou, Laurent Larger*
16:40 - 17:00	Coffee Break
17:00 - 18:40	Session 3 (S3)
17:00 - 17:20	**S3.1.** *"Dynamics and Chaos Synchronization of TE-TM Orthogonal Optical Feedback in Semiconductor Lasers", Junji Ohtsubo, Yasutoshi Takeuchi, Rui Shogenji*

CATS WORKSHOP PROGRAM

17:20 - 17:40	**S3.2.** *"Long-Delay Self-Synchronization of a Chaotic Semiconductor Laser", M. Benedetti, Valerio Annovazzi-Lodi, Cristian Antonelli, Antonio Mecozzi*
17:40 - 18:00	**S3.3.** *"Open vs Closed Loop Receivers in all-Optical Chaos-Based Communication Systems: the Final Round", Miguel C. Soriano, Pere Colet, Claudio R. Mirasso*
18:00 - 18:20	**S3.4.** *"Synchronization and Message Transmission Using Coupled Semiconductor Lasers with Filtered Optical Feedback", Flavio Ruiz-Oliveras, Miguel C. Soriano, Pere Colet, Claudio R. Mirasso*
18:00 - 18:20	**S3.5.** *"Closed-loop synchronization in photonic-integrated chaos emitters", A. Argyris, M. Hamacher, A. Bogris, K.E. Chlouverakis, D. Syvridis*
18:20 - 18:40	**S3.6.** *"Security of chaos encryption in photonic integrated circuits", A. Bogris, A. Argyris, K.E. Chlouverakis, D. Syvridis*

Wednesday 3 June 2009

09:50 - 11:30	Session 4 (S4)
09:50 - 10:30	**IS4.1.** *"Electronic chaos and applications", Prof. Peter Stavroulakis, Technical University of Crete, Greece*
10:30 - 10:50	**S4.1.** *"Breaking chaotic encryption using PDEs", A. Jacobo, M.C. Soriano, R.M. Nguimdo, P. Colet, C. Mirasso*
10:50 - 11:10	**S4.2.** *"Unmasking chaotic cryptosystems based on delayed optoelectronic feedback", S. Ortín, M. Jacquot, L. Pesquera, M. Peil, L. Larger*
11:10 - 11:30	**S4.3.** *"Multiplexing Information Using Chaotic Oscillators with Multiple Feedback Loops", Damien Rontani, Alexandre Locquet, Marc Sciamanna, David S. Citrin*
11:30 - 12:00	Coffee Break
12:00 - 13:40	Session 5 (S5)
12:00 - 12:40	**IS5.1.** *"Dynamics of mutually coupled systems: from lasers to neurons", Prof. Claudio R. Mirasso, Universitat de les Illes Balears, Spain*
12:40 - 13:00	**S5.1.** *"Experiment on fast random bit generation using chaotic semiconductor lasers", Atsushi Uchida, Kazuya Amano, Masaki Inoue, Kunihito Hirano, Sunao Naito, Hiroyuki Someya, Isao Oowada, Shigeru Yoshimori, Kazuyuki Yoshimura, Peter Davis*
13:00 - 13:20	**S5.2.** *"Correlation Chaotic Optical Time-Domain Reflectometry", Yun-Cai Wang, An-Bang Wang*
13:20 - 13:40	**S5.3.** *"Chaotic Transmission System in Free Space",Valerio Annovazzi-Lodi, Giuseppe Aromataris, Mauro Benedetti, Sabina Merlo, Valeria Vercesi*
13:40 – 15:00	Lunch
15:00 - 16:40	Session 6 (S6)
15:00 - 15:20	**S6.1.** *"Evaluating Free Space, Optical Injected Chaotic Steganography", Marco Corà, Leonora Ursini, Marco Santagiustina*
15:20 - 15:40	**S6.2.** *"Impairments due to Fiber Random Birefringence in Optical Chaotic Steganography", Leonora Ursini, Marco Santagiustina, Cristian Antonelli, Antonio Mecozzi*
15:40 – 16:00	Closing of CATS Workshop