

## CATS WORKSHOP PROGRAM

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

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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	<b>IS1.1.</b> <i>“Recent developments of the PICASSO project”, Prof. Dimitris Syuridis, National Kapodistrian University of Athens, Greece</i>
10:55 - 11:30	<b>IS1.2.</b> <i>“Semiconductor Laser Chaos: Past, Present, and Future”, Prof. Junji Ohtsubo, Shizuoka University, Japan</i>
11:30 - 12:00	Coffee Break
12:00 - 13:40	Session 1 (S1)
12:00 - 12:20	<b>S1.1.</b> <i>“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</i>
12:20 - 12:40	<b>S1.2.</b> <i>“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</i>
12:40 - 13:00	<b>S1.3.</b> <i>“Investigations of Coherence Collapse scenarios of Quantum Cascade Lasers”, Jan-Eric Nimsch, Jens von Staden, Dominik Blömer, Wolfgang Elsässer</i>
13:00 - 13:20	<b>S1.4.</b> <i>“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</i>
13:20 - 13:40	<b>S1.5.</b> <i>“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</i>
13:40 - 15:00	Lunch
15:00-16:40	Session 2 (S2)
15:00 - 15:40	<b>IS2.1.</b> <i>“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</i>
15:40 - 16:00	<b>S2.1.</b> <i>“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</i>
16:00 - 16:20	<b>S2.2.</b> <i>“Opto-electronic devices with double feedback loop”, Romain Modeste Nguimdo, Pere Colet, Claudio Mirasso</i>
16:20 - 16:40	<b>S2.3.</b> <i>“Dynamics of electro-optic delay oscillators pumped with two lasers”, Romain Modeste Nguimdo, Pere Colet, Yanne Chembo Kouomou, Laurent Larger</i>
16:40 - 17:00	Coffee Break
17:00 - 18:40	Session 3 (S3)
17:00 - 17:20	<b>S3.1.</b> <i>“Dynamics and Chaos Synchronization of TE-TM Orthogonal Optical Feedback in Semiconductor Lasers”, Junji Ohtsubo, Yasutoshi Takeuchi, Rui Shogenji</i>

## CATS WORKSHOP PROGRAM

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

### Wednesday 3 June 2009

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