

TIWDC 2015 TECHNICAL PROGRAMME

September 22, Morning	
9:00	Opening
	Session 1: Channel Modeling for Nonlinear Propagation Chairman: Sergei Turitsyn (Aston University)
9:20	P1.1: On the Nonlinear Reference Phase in Regular Perturbation Models* <i>P. Serena and A. Bononi</i>
9:40	P1.2: Propagation Effects in Optical Fibers for Space-Division Multiplexed Transmission* <i>C. Antonelli</i>
10:00	P1.3: Numerical Solution of the Direct Scattering Problem for the Nonlinear Schrödinger Equation <i>L. Fermo, C. van der Mee, and S. Seatzu</i>
10:15	P1.4: Nonlinear Noise Characterization in Highly Dispersive Optical Transmission Systems <i>F. Matera</i>
10:30	P1.5: Numerical Methods for the Inverse Nonlinear Fourier Transform <i>S. Civelli, L. Barletti, and M. Secondini</i>
10:45	Coffee Break
	Session 2: Transmission and Detection Strategies Chairman: Paolo Serena (Università di Parma)
11:20	P2.1: Nonlinear Fourier Transform and Eigenvalue Communications* <i>S. Turitsyn</i>
11:40	P2.2: Receiver-Based Strategies for Mitigating Nonlinear Distortion in High-Speed Optical Communication Systems* <i>T. Xu, G. Liga, N. A. Shevchenko, R. I. Killey, P. Bayvel</i>
12:00	P2.3: Inter-Band Nonlinear Interference Canceler for Long-Haul Coherent Optical OFDM Transmission <i>A. Amari, P. Ciblat, and Y. Jaouën</i>
12:15	P2.4: Digital Back Propagation in Soliton Coherent Transmission <i>O. Yushko, A. Redyuk, M. Fedoruk, S. Turitsyn, K. Blow, N. Doran, and A. Ellis</i>
12:30	P2.5: Nonlinearity Compensation: Is the Knowledge of Absolute Amplitude and Phase Really Necessary? <i>N. Alic, E. Temprana, E. Myslivets, and S. Radic</i>
12:45	P2.6: Experimental Demonstration of Long Haul Transmission of Eigenvalue Modulated Signals <i>A. Maruta, A. Toyota, Y. Matsuda, and Y. Ikeda</i>
13:00	Lunch

* *Invited Paper*

September 22, Afternoon	
	<p>Session 3: System Aspects of Non-Linear Transmission</p> <p>Chairman: Gabriella Bosco (Politecnico di Torino)</p>
14:25	<p>P3.1: Theoretical and Experimental Assessment of Nonlinearity Mitigation through Symbol Rate Optimization*</p> <p><i>P. Poggiolini, G. Bosco, A. Carena, V. Curri, Y. Jiang, S. M. Bilal, A. Nespola, L. Bertignono, S. Abrate, and F. Forghieri</i></p>
14:45	<p>P3.2: On the Impact of Carrier Phase Estimation on Phase Correlations in Coherent Fiber Transmission</p> <p><i>T. Fehenberger, N. Hanik, T. A. Eriksson, P. Johannisson, and M. Karlsson</i></p>
15:00	<p>P3.3: On the Performance of Digital Back-Propagation for Imperfect Knowledge of Link Design</p> <p><i>R. Rath and W. Rosenkranz</i></p>
15:15	<p>P3.4: Wavelength Division Multiplexed Optical Eigenvalue Modulated System</p> <p><i>A. Toyota and A. Maruta</i></p>
15:30	<p>P3.5: Transmission Performances of 400 Gbps Coherent 16-QAM Multi-Band OFDM Adopting Nonlinear Mitigation Techniques</p> <p><i>M. Song, E. Pincemin, V. Vgenopoulou, and I. Roudas</i></p>
15:45	<p>P3.6: Review on Phase Preserving Amplitude Regeneration for Phase-Coded Signals Exploiting FWM in a Saturated SOA</p> <p><i>V. Vercesi, G. Serafino, A. Bogoni, and C. Porzi</i></p>
16:00	Coffee Break
	<p>Session 4: Theoretical Limits in Fiber-Optic Communication</p> <p>Chairman: Marco Secondini (Scuola Superiore Sant'Anna)</p>
16:30	<p>P4.1: Exploring the Limits of Receiver-Side Non-Linearity Mitigation*</p> <p><i>H. Wymeersch</i></p>
16:50	<p>P4.2: Capacity Bounds for the Nonlinear Schrödinger Channel*</p> <p><i>M. Yousefi</i></p>
17:10	<p>P4.3: Spectral Efficiency Estimate for Non-linear Optical Fibers*</p> <p><i>P. Kazakopoulos and A. Moustakas</i></p>
17:30	<p>P4.4: Information Theory Analysis of Regenerative Channels</p> <p><i>M. Sorokina, S. Sygletos, and S. Turitsyn</i></p>
17:45	<p>P4.5: BICM Capacity Analysis of 8QAM-Alternative Modulation Formats in Nonlinear Fiber Transmission</p> <p><i>K. Kojima, T. Koike-Akino, D. S. Millar, and K. Parsons</i></p>
18:00	Closing

*Invited Paper