CURRICULUM VITAE

Name	**Gabriella**
Surname	**BOSCO**
Date of birth	1 November 1973
Place of birth	Ivrea, Italy
Address	Dipartimento di Elettronica e Telecomunicazioni Politecnico di Torino C.so Duca Degli Abruzzi 24 10129 Torino, Italy
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EDUCATION

February 2002
PhD in “Electronic and Communication Engineering” from Politecnico di Torino.
PhD thesis title: “Performance analysis of optical communication systems”

May 1998
Master of Science degree in “Telecommunication Engineering” from Politecnico di Torino (summa cum laude).
MSc thesis title: “Nonlinear propagation effects in WDM fiber optical transmission systems”.

ACADEMIC AND RESEARCH EXPERIENCE

16th April 2020 – Present
Full Professor
Department of Electronics and Telecommunications, Politecnico di Torino.

1st October 2014 – 15th April 2020
Associate Professor
Department of Electronics and Telecommunications, Politecnico di Torino.

1st October 2015 – 30th September 2019
Elected member of the Academic Senate of Politecnico di Torino

1st August 2011 – 30th September 2014
Assistant Professor
Department of Electronics and Telecommunications, Politecnico di Torino.

1st November 2001 – 31st July 2011
Post-doc researcher
Optical Communications Group, Politecnico di Torino.

March – December 2000
Visiting researcher
Optical Communications and Photonic Networks Group, University of California, Santa Barbara

Teaching experience
Since 2004, I've been teaching several classes in "Signal Theory", "Digital Communications" and "Optical Communications" in the framework of the Bachelor and Master (1st and 2nd level) degrees in Electronic Engineering, Telecommunication Engineering and Computer Engineering at Politecnico di Torino.

PARTICIPATION IN THE EDITORIAL BOARD OF MAJOR INTERNATIONAL JOURNALS

January 2019 – Present
Editor-in-Chief for IEEE/OSA Journal of Lightwave Technology

January - December 2018
Deputy Editor for IEEE/OSA Journal of Lightwave Technology

January 2014-December 2017
Associate Editor for IEEE/OSA Journal of Lightwave Technology

PARTICIPATION IN TECHNICAL COMMITTEES OF NATIONAL AND INTERNATIONAL CONFERENCES

OFC - The Optical Networking and Communication Conference
2019: General Chair
2017: Program Chair
2016: Technical committee member
S4: "Digital electronic subsystems and transceivers"
2015: Sub-committee Chair
S4: "Digital electronic subsystems and transceivers"
2013-2014: Technical committee member
Subcommittee 10 "Transmission Subsystems and Network Elements"

IPC - The IEEE Photonics Society Conference
2020: Sub-committee Chair
Subcommittee: "Optical communications and networks"
2017-2019: Sub-committee Vice-chair
Subcommittee: "Optical communications"
2016: Technical committee member
Subcommittee: "Optical communications"

ACP - Asia Communications and Photonics Conference
2015: Subcommittee Co-chair
Track 3 "Optical Transmission Systems, Subsystems and Technologies

FOTONICA - Italian National Conference on Photonic Technologies
2015: Technical Program Chair

Tyrrhenian Workshop on Digital Communications
2015: Technical committee member

CLEO - Science & Innovations
2012-2014: Technical committee member
Subcommittee S&I 12 "Lightwave Communications and Optical Networks"

ORGANIZATION OF INTERNATIONAL WORKSHOPS

2016: OFC 2016, Anaheim (USA)
Workshop title; “To serialize or not to serialize? Practical approaches for coherent transmission at and beyond 400G. Co-organizer: Han Henry Sun (Infinera).

2013: OFC 2013, Anaheim (USA)
Workshop title: “Paths to additional capacity/performance gain: How far can we go and is it worth the price?”. Co-organizers: Chris Fludger (Cisco), Ezra Ip (NEC Labs).

AWARDS AND HONORS

2019
Elevation to the **IEEE Fellow Member** grade, “for contributions to modeling and design of coherent optical communication systems”.

2017
Elevation to the **OSA Fellow Member** grade, “for pioneering contributions to the modeling and design of coherent optical communication systems”.

2015
Co-author of the paper winner of the **“2012 JLT Best Paper Award”**:
A. Carena, V. Curri, G. Bosco, P. Poggiolini, F. Forghieri, “Modeling of the Impact of Non-Linear Propagation Effects in Uncompensated Optical Coherent Transmission Links,” Journal of Lightwave Technology, vol. 30, no. 10, pp. 1524-1539, May. 15, 2012.

2014
Elevation to the **OSA Senior Member** grade

First author of the paper winner of the **“2011 JLT Best Paper Award”**:
G. Bosco, V. Curri, A. Carena, P. Poggiolini, F. Forghieri “On the Performance of Nyquist-WDM Terabit Superchannels Based on PM-BPSK, PM-QPSK, PM-8QAM or PM-16QAM Subcarriers”, Journal of Lightwave Technology, vol. 29, no. 1, pp. 53-61*,* Jan. 1, 2011.

2013
Elevation to the **IEEE Senior Member** grade

PUBLICATIONS IN INTERNATIONAL JOURNALS AND CONFERENCES

Since 1999, I've co-authored more than 200 papers in major international journals and conferences. The complete list of the most significant publications derived from my research activity is reported at the end of this document (**Annex A**) and it includes:

- 74 journal papers
- 104 international (refereed) conference papers
- 7 book chapters
- 2 patents
- 20 national conference papers

The following list shows the number and type of **international journal publications** (the most prestigious international journals in the field of optical communications are highlighted in bold font):

- 23 publications in IEEE/OSA Journal of Lightwave Technology (IF: 3.671, 5-year IF: 3.350)
- 14 publications in OSA Optics Express (IF: 3.307, 5-year IF: 3.436)
- 25 publications in IEEE Photonics Technology Letters (IF: 2.375, 5-year IF: 2.037)
- 3 publications in IEEE Transactions on Communications (IF : 4.058, 5-year IF : 3.873)
- 9 publications in other international journals

The Impact Factor (IF) values reported above have been extracted from the "Journal Citation Reports 2016" of Thomson Reuters (www.jcr-incites-thomsonreuters-com).

The following list shows the number and type of **international conferences publications** (the most prestigious international conferences in the field of optical communications are highlighted in bold font):

- 32 publications the proceedings of the Optical Fiber Communication Conference (OFC)
- 41 publications the proc. of the European Conference on Optical Communication (ECOC)
- 7 publications the proc. of the International Conference on Transparent Optical Networks (ICTON)
- 6 publications the proc. of the Lasers and Electro-Optics Society Conference (LEOS)
- 4 publications the proc. of Signal Processing in Photonics Communications (SPPCom)
- 13 publications in the proceedings of other international conferences

INVITED TALKS/PAPERS IN INTERNATIONAL CONFERENCES/JOURNALS

2019

- G. Bosco, “Modeling and Mitigation of Nonlinear Effects in Uncompensated Coherent Optical Transmission Systems”, Proc. of CLEO 2019, Invited Paper SW3O.5, San José (USA), May 2019.

2018

- G. Bosco, “Flexible transceivers and the rate/reach tradeoff,” Optical Fiber Conference (**OFC**) 2018, San Diego (USA), March 2017**, Invited Tutorial Paper** M1G.1.
- D. Pilori, L. Bertignono, A. Nespola, F. Forghieri and G. Bosco, "Comparison of Probabilistically Shaped 64QAM with Lower-Cardinality Uniform Constellations in Long-Haul Optical Systems," ***J. Lightw. Technol.***, vol. 36, no. 2, pp. 501-509, Jan. 15 2018.

2017

- G. Bosco, D. Pilori, P. Poggiolini, A. Carena, F. Guiomar, “Scalable modulation technology and the tradeoff of reach, spectral efficiency, and complexity,” **Invited Paper**, **Photonics West**, San Francisco (USA), Jan. 2017.

2016

- P. Poggiolini, A. Nespola, Y. Jiang, G. Bosco, A. Carena, L. Bertignono, S. M. Bilal; S. Abrate; F. Forghieri, “Analytical and Experimental Results on System Maximum Reach Increase Through Symbol Rate Optimization**”, J. Lightw. Technol.**, vol. 34, no. 8, Apr, 2016, p.1872.

2015

- R. Pastorelli, G. Bosco, S. Piciaccia, F. Forghieri, “Network Planning Strategies for Next-Generation Flexible Optical Networks”, **Journal of Optical Communications and Networking**, vol. 7, no. 3, pp. A511-A525, (2015)
- F.P. Guiomar, S.B. Amado, A. Carena, G. Bosco, A. Nespola, A.L. Teixeira, A.N. Pinto, “Fully Blind Linear and Nonlinear Equalization for 100G PM-64QAM Optical Systems”, **Journal of Lightwave Technology**, vol. 33, no. 7, pp. 1265- 1274, Apr. 1, 2015.

2014

- P. Poggiolini, G. Bosco, A. Carena, V. Curri, Y. Jiang, F. Forghieri, “The GN-Model of Fiber Non-Linear Propagation and its Applications,” IEEE **Journal of Lightwave Technology**, vol. 32 , no. 4, Feb. 2014,pp. 694 – 721.

2012

- G. Bosco, “Spectral Shaping: Optical vs. Electrical Approaches”, Optical Fiber Conference (**OFC**) 2012, Los Angeles (USA), March 2012, **Invited Paper** OM3H.1.
- G. Bosco, “Spectrally Efficient Transmission: a Comparison between Nyquist-WDM and CO-OFDM Approaches”, **SPPCom** 2012, Colorado Springs (USA), June 2012, **Invited Paper** SPW3B.1.

2011

- G. Bosco, A. Carena, “Performance Evaluation of Coherent PS-QPSK (HEXA) Modulation”, Signal Processing in Photonic Communications (**SPPCom**) 2011, Toronto (Canada), June 2011, **Invited Paper** SPTuB2

2010

- G. Bosco, “Is Nyquist WDM the Optimum Format for Spectrally Efficient Terabit Superchannel Transmission?”, **ECOC** 2010, Torino, Sep. 2010, **invited talk** in the Workshop on “Single and Multi-Carrier Techniques to Build Terabit/s per Channel Optical Transmission Systems”

PEER AND EXTERNAL REVIEW ACTIVITIES

2020

- **Participation as “discussion leader” in the PhD licentiate thesis defense** of Erik Börjeson at Chalmers University, Goteborg (Sweden). Title of the thesis: "Implementation of Carrier Phase Recovery Circuits for Optical Communication".
- **Jury member for the PhD thesis defense** of Eric Sillekens at University College London. Title of the thesis: “Information theory and signal processing for the optical transmission system".

2019

- **External examiner and jury member for the PhD thesis defense** of Júlio César Medeiros Diniz at Technical Univrsity of Denmark – DTU (Denmark). Title of the thesis: “Advanced Digital Signal Processing for Next-Generation Coherent OpticalCommunication Transceivers
- **External examiner and jury member for the PhD thesis defense** of Aazar S, Kashi at Queen’s University, Kingston (Canada). Title of the thesis: “Implications of fiber nonlinearities on coherent optical fiber communications ".

2019-2020

- **Member of the “2019 IEEE Photonics Joint Awards Committee**”, in charge of assigning four prestigious scientific awards granted by the IEEE Photonics Society (Aron Kressel Award, Engineering Achievement Award, Quantum Electronics Award, William Streifer Scientific Award).

2018- 2019

- Member of the **“Edwin Land Medal Committee” (chair in 2019)**
  The Edwin H. Land Medal was established in 1992 by The Optical Society (OSA) and the Society for Imaging Science and Technology (IS&T) and recognizes pioneering work empowered by scientific research to create inventions, technologies, and products.

2017

- **Participation as “opponent” in the PhD thesis defense** of Jaime Rodrigo Navarro at KTH, Stockholm (Sweden). Title of the thesis: "Phase Noise Tolerant Modulation Formats and DSP Algorithms for Coherent Optical Systems ".
- **Participation as “discussion leader” in the PhD licentiate thesis defense** of Alireza Sheikh at Chalmers University, Goteborg (Sweden). Title of the thesis: "On Filter and Code Design for Energy Efficient Fiber-Optic Communications".
- **External reviewer** for the evaluation of research projects funded by the “Canada Foundation for Innovation”.

2016

- **External examiner for PhD thesis** of Meng QIU at McGill University (Canada). Title of the thesis: “Advanced Digital Signal Processing for Next-Generation Coherent Optical Communication Systems”.
- **Jury member for the PhD thesis defense** of Rafael Rios Müller at Télécom ParisSud / Nokia Bell Labs (France). Title of the thesis: " Advanced modulation formats and signal processing for high speed spectrally efficient optical communications".
- Member of the “**IEEE Photonics Society Distinguished Lecturer Committee**”

2015

- **External reviewer** for the evaluation of research projects funded by the Hong-Kong “Research Grants Council” (RGC).
- Member of the “**IEEE Photonics Society Distinguished Lecturer Committee**”
- **Jury member for the PhD thesis defense** of Elie Awwad at Telecom ParisTech in Paris. Title of the thesis: "Emerging Space-Time Coding Techniques for Optical Fiber Transmission Systems".
- **Jury member for the PhD thesis defense** of Milen Paskov at University College London. Title of the thesis: “Algorithms and subsystems for next generation optical networks".

2014- 2016

- Member of the “**IEEE Photonics Society Distinguished Lecturer Committee**”
  This committee is responsible for reviewing and ranking the candidates, in order to select the list of lecturers for the incoming year (the IEEE Photonics Society Distinguished Lecturer Program was designed to honor excellent speakers who have made technical, industrial or entrepreneurial contributions to the field of photonics and to enhance the technical programs of the IEEE Photonics Society Chapters).

2014

- **External reviewer** for the evaluation of research projects funded by the Hong-Kong “Research Grants Council” (RGC).
- **External reviewer** for the evaluation of research projects funded by the “Fund for Scientific Research-FNRS” (Belgium), in the framework of the “Credits & Projects 2014” call.
- Member of the “**IEEE Photonics Society Distinguished Lecturer Committee**”

2013

- **External reviewer** for the evaluation of research projects funded by the “Fund for Scientific Research-FNRS” (Belgium), in the framework of the “Credits & Projects 2013” call.

2010

- **Jury member for the PhD thesis defense** of Oriol Bertran-Pardo at Telecom ParisTech in Paris. Title of the thesis: "On coherent detection for optical transmissions at 40 Gb/s and 100 Gb/s". The thesis was developed in the research laboratories of Alcatel-Lucent in Paris.

SCIENTIFIC PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

Research projects based on calls that involved competitive peer review

May 2008-April 2012
Network of Excellence of 7th ICT-Framework Programme: **Euro-FOS**

October 2010-March 2011
Network of Excellence of 7th ICT-Framework Programme: **ALPHA**

February 2008-February 2011
Network of Excellence of 7th ICT-Framework Programme: **BONE**

March 2006-February 2008
Integrated Project of 6th ICT-Framework Programme: **Nobel2**

March 2006-February 2008
Network of Excellence of 6th ICT-Framework Programme: **E-Photon/One+**

January 2004-December 2005
Network of Excellence of 6th ICT-Framework Programme: **E-Photon/One**

December 2005 – November 2006
PRIN 2004: "Transmission of Optical Signals exploiting Competitive Amplification techniques **(TOSCA)",** funded by the Italian Ministry of University and Research.

Research projects funded by national and international industries

CISCO Systems (January 2009 – Present)
Research activity on long-haul coherent optical transmission systems.

Telecom Italia (2010 – 2013)
Research activity on technological solutions for NG-PON access networks.

HUAWEI (2008 –2009)
Research activity on analysis and development of MLSE algorithms for the compensation of chromatic dispersion and polarization mode dispersion in high bit-rate optical systems.

ESA – European Space Agency (2003 – 2005).
Research activity on multi-level modulation schemes using LDPC forward error correction codes.

ANNEX A

Complete list of all the significant publications

JOURNAL PAPERS

[J.1] G. Bosco, A. Carena, V. Curri, R. Gaudino, P. Poggiolini e S. Benedetto, "Parametric gain in multiwavelength systems: a new approach to noise enhancement analysis", *IEEE Photonic Technology Letters*, vol.11, no.9, pp.1135-1137, Sep.1999.
ISSN: 1041-1135, DOI: 10.1109/68.784225

[J.2] G. Bosco, A. Carena, V. Curri, R. Gaudino, P. Poggiolini, S. Benedetto, "Suppression of spurious tones induced by the split-step method in fiber systems simulation", *IEEE Photonic Technology Letters,* vol. 12, no. 5, pp. 489-491, May 2000.
ISSN: 1041-1135, DOI: 10.1109/68.841262

[J.3] G. Bosco, A. Carena, V. Curri, R. Gaudino, P. Poggiolini e S. Benedetto, "A Novel Analytical Method for the BER Evaluation in Optical Systems Affected by Parametric Gain", *IEEE Photonic Technology Letters*, vol.12, no.2 , pp. 152-154, Feb. 2000.
ISSN: 1041-1135, DOI: 10.1109/68.823500

[J.4] G. Bosco, A. Carena, V. Curri, R. Gaudino, P. Poggiolini e S. Benedetto, "A Novel Analytical Approach to the Evaluation of the Impact of Fiber Parametric Gain on the Bit Error Rate ", *IEEE Transactions on Communications*, vol. 49, no. 12, pp. 2154-2163, Dec. 2001.
ISSN: 0090-6778, DOI: 10.1109/26.974262

[J.5] G. Bosco, A. Carena, V. Curri, R. Gaudino and P. Poggiolini, "On the use of NRZ, RZ and CSRZ modulation at 40 Gbit/s with narrow DWDM channel spacing, *Journal of Lightwave Technology*, vol. 20, no. 9, pp. 1694-1704, Sep. 2002.
ISSN: 0733-8724, DOI: 10.1109/JLT.2002.806309

[J.6] G. Bosco, B.E. Olsson e D.J. Blumenthal, "Pulsewidth distortion monitoring in a 40 Gb/s optical system affected by PMD", *IEEE Photonic Technology Letters,* vol. 14, no. 3, pp. 307-309, Mar. 2002. ISSN: 1041-1135, DOI: 10.1109/68.986795

[J.7] G. Bosco, A. Carena, V. Curri, R. Gaudino and P. Poggiolini, "Quantum limit of direct detection optically preamplified receivers using duobinary transmission", IEEE *Photonic Technology Letters*, vol. 15, no. 1, pp. 102-104, Jan. 2003.
ISSN: 1041-1135, DOI: 10.1109/LPT.2002.805787

[J.8] G. Bosco, G. Montorsi, S. Benedetto, "Soft decoding in optical Systems", *IEEE Transactions on Communications*, vol. 51, no. 8, pp. 1258-1265, Aug. 2003.
ISSN: 0090-6778, DOI: 10.1109/TCOMM.2003.815055

[J.9] G. Bosco, G. Montorsi, S. Benedetto, "A new algorithm for "hard" iterative decoding of concatenated codes", *IEEE Transactions on Communications*, vol. 51, no. 8, pp. 1229-1232, Aug. 2003.
ISSN: 0090-6778, DOI: 10.1109/TCOMM.2003.815085

[J.10] G. Bosco, P. Poggiolini, "On the Q-factor inaccuracy in the performance analysis of optical direct-detection DPSK systems", *IEEE Photonic Technology Letters*, vol. 16, no. 2, pp. 665-667, Feb. 2004. ISSN: 1041-1135, DOI: 10.1109/LPT.2003.820475

[J.11] G. Bosco, A. Carena, V. Curri, R. Gaudino and P. Poggiolini, "Modulation formats suitable for ultrahigh spectral efficient WDM systems", *IEEE Journal of Selected Topics in Quantum Electronics*, vol. 10, no. 2, pp. 321-328, March/April 2004.
ISSN: 1077-260X, DOI: 10.1109/JSTQE.2004.827830

[J.12] G. Bosco, P. Poggiolini, "Analysis of impact of receiver imperfections on performance of optical DQPSK systems", IEE Electronics Letters, vol. 40, no. 18, pp. 1147-1149, Sep. 2004.
ISSN: 0013-5194, DOI: 10.1049/el:20045809

[J.13] G. Bosco, P. Poggiolini, "The impact of receiver imperfections on the performance of optical direct-detection DPSK", *Journal of Lightwave Technology*, vol. 23, no.2, pp.842-848, Feb. 2005. ISSN: 0733-8724, DOI: 10.1109/JLT.2004.838841

[J.14] G. Bosco, G. Montorsi, S. Benedetto, "Decreasing the complexity of LDPC iterative decoders", *IEEE Communications Letters*, vol. 9, no. 2, pp. 634-636, Jul. 2005.
ISSN: 1089-7798, DOI: 10.1109/LCOMM.2005.1461688

[J.15] G. Bosco, P. Poggiolini, "On the joint effect of receiver impairments on direct-detection DQPSK systems", *Journal of Lightwave Technology*, vol. 24, no. 3, pp. 1323-1333, March 2006.
ISSN: 0733-8724, DOI: 10.1109/JLT.2005.863260

[J.16] G. Bosco, P. Poggiolini, "Long-Distance Effectiveness of MLSE IMDD Receivers", *IEEE Photonics Technology Letters*, vol. 18, no. 9, pp. 1037-1039, May 2006.
ISSN: 1041-1135, DOI: 10.1109/LPT.2006.873478

[J.17] M. Visintin, P. Poggiolini, G. Bosco, "Long-haul optically uncompensated IMDD transmission with MLSE using the M-Method," *IEEE Photonics Technology Letters*, vol. 19, no. 16, pp. 1230-1232, Aug. 15, 2007.
ISSN: 1041-1135, DOI: 10.1109/LPT.2007.902169

[J.18] P. Poggiolini, G. Bosco, "Impact of Chromatic Dispersion on DPSK and DQPSK Direct-Detection Optical Systems", *Annals of Telecommunications*, Vol. 62, no. 5-6, May-Jun. 2007.
ISSN: 0003-4347, DOI: 10.1007/BF03253275

[J.19] G. Bosco, V. Curri, E. Roffé, P. Poggiolini, "Joint effect of MLSE and receiver filters optimization on dispersion robustness of IMDD, DPSK, DQPSK and Duobinary modulation", *IEEE Photonics Technology Letters*, vol. 19, no. 24, pp. 2003-2005, Dec. 15, 2007.
ISSN: 1041-1135, DOI: 10.1109/LPT.2007.909673

[J.20] G. Bosco, I. Cano, V. Curri, P. Poggiolini, "Optimization of Branch Metric Exponent and Quantization Range in MLSE Receivers for Duobinary Systems", *IEEE Photonics Technology Letters*, vol.20, no.11, Jun. 2008, pp. 924-926.
ISSN: 1041-1135, DOI: 10.1109/LPT.2008.922369

[J.21] P. Poggiolini, G. Bosco, Y. Benlachtar, S.J. Savory, P. Bayvel, R.I. Killey, J. Prat, "Long-haul 10 Gbit/s linear and non-linear IMDD transmission over uncompensated standard fiber using a SQRT-metric MLSE receiver," *Optics Express*, vol. 16, no. 17, pp.12919-12936, 2008.
ISSN: 1094-4087, DOI: 10.1364/OE.16.012919

[J.22] G. Bosco, P. Poggiolini, M. Visintin, "Performance Analysis of MLSE Receivers Based on the Square-Root Metric", *IEEE Journal of Lightwave Technology*, vol. 26, no.14, Jul. 15, 2008, pp. 2098-2109. ISSN: 0733-8724, DOI: 10.1109/JLT.2008.920135

[J.23] P. Baroni, G. Bosco, A. Carena, P. Poggiolini, "Performance evaluation and assessment of receiver impairments of a novel PolSK transceiver based on differential demodulation," *Optics Express*, vol. 16, no. 20, pp. 16079-16092, 2008.
ISSN: 1094-4087, DOI: 10.1364/OE.16.016079

[J.24] P. Poggiolini, G. Bosco, "Long-Haul WDM IMDD Transmission at 10.7 Gbit/s in a Dispersion-Managed Multispan System Using MLSE Receivers", *Journal of Lightwave Technology* , vol. 26, no. 17, pp. 3041-3047, Sep. 1, 2008.
ISSN: 0733-8724, DOI: 10.1109/JLT.2008.923925

[J.25] M. Joindot, G. Bosco, A. Carena, V. Curri, P. Poggiolini, "Fundamental performance limits of optical duobinary", *Optics Express*, vol. 16, no. 24, pp. 19600-19614, 2008.
ISSN: 1094-4087, DOI: 10.1364/OE.16.019600

[J.26] S.C.J. Lee, F. Breyer, S. Randel, R. Gaudino, G. Bosco, A. Bluschke, M. Matthews, P. Rietzsch, R. Steglich, H.P.A. van den Boom, A.M.J. Koonen, "Discrete Multitone Modulation for Maximizing Transmission Rate in Step-Index Plastic Optical Fibres", *Journal of Lightwave Technology*, vol. 27, no. 11, pp. 1503-1513, Jun. 1, 2009.
ISSN: 0733-8724, DOI: 10.1109/JLT.2009.2013480

[J.27] I. Papagiannakis, D. Klonidis, V. Curri, P. Poggiolini, G. Bosco, R.I. Killey, M. Omella, J. Prat, D. Fonseca, A. Teixeira, A. Cartaxo, R. Freund, E. Grivas, A. Bogris, A.N. Birbas, I. Tomkos, "Electronic distortion compensation in the mitigation of optical transmission impairments: the view of joint project on mitigation of optical transmission impairments by electronic means ePhoton/One+

project", *IET Optoelectronics*, vol. 3, no. 2, pp. 73-85, April 2009.
ISSN: 1751-8768, DOI: 10.1049/iet-opt.2008.0032

[J.28] G. Bosco, P. Poggiolini, M. Visintin, Li-Liangchuan, Chen-Ming, "New Branch Metrics for MLSE Receivers Based on Polarization Diversity for PMD Mitigation", *Journal of Lightwave Technology,* vol. 27, no. 21, pp. 4793-4803, Nov. 1, 2009.
ISSN: 0733-8724, DOI: 10.1109/JLT.2009.2026720

[J.29] A. Carena, V. Curri, P. Poggiolini, G. Bosco, F. Forghieri, "Impact of ADC Sampling Speed and Resolution on Uncompensated Long-Haul 111 Gbit/s WDM PM-QPSK Systems", *IEEE Photonics Technology Letters*, vol. 21, no. 20, pp. 1514-1516, Oct. 15, 2009.
ISSN: 1041-1135, DOI: 10.1109/LPT.2009.2028742

[J.30] P. Poggiolini, G. Bosco, A. Carena, V. Curri, F. Forghieri, "Performance evaluation of coherent WDM PS-QPSK (HEXA) accounting for non-linear fiber propagation effects", *Optics Express*, vol. 18, no. 11, pp. 11360-11371 (2010).
ISSN: 1094-4087, DOI: 10.1364/OE.18.011360

[J.31] V. Curri, P. Poggiolini, G. Bosco, A. Carena, F. Forghieri, "Performance Evaluation of Long-haul 111 Gb/s PM-QPSK Transmission over Different Fiber Types", *IEEE Photonics Technology Letters*, vol. 22, no. 19, pp. 1446-1448, Oct. 1, 2010.
ISSN: 1041-1135, DOI: 10.1109/LPT.2010.2060320

[J.32] G. Gavioli, E. Torrengo, G. Bosco, A. Carena, V. Curri, V. Miot, P. Poggiolini, F. Forghieri, S.J. Savory, L. Molle, R. Freund, "NRZ-PM-QPSK 16×100 Gb/s Transmission Over Installed Fiber With Different Dispersion Maps", *IEEE Photonics Technology Letters*, vol. 22, no. 6, pp. 371-373, Mar. 1, 2010.
ISSN: 1041-1135, DOI: 10.1109/LPT.2009.2039870

[J.33] G. Bosco, A. Carena, V. Curri, P. Poggiolini, F. Forghieri, "Performance Limits of Nyquist-WDM and CO-OFDM in High-Speed PM-QPSK Systems", *IEEE Photonics Technology Letters*, vol. 22, no. 15, pp. 1129-1131, Aug. 1, 2010.
ISSN: 1041-1135, DOI: 10.1109/LPT.2010.2050581

[J.34] A. Carena, V. Curri, P. Poggiolini, G. Bosco, F. Forghieri, "Maximum Reach Versus Transmission Capacity for Terabit Superchannels Based on 27.75-GBaud PM-QPSK, PM-8QAM, or PM-16QAM ", *IEEE Photonics Technology Letters*, vol. 22, no. 11, pp. 829-831, Jun. 1, 2010.
ISSN: 1041-1135, DOI: 10.1109/LPT.2010.2045753

[J.35] G. Bosco, I.N. Cano, P. Poggiolini, Liangchuan Li, Ming Chen, "MLSE-Based DQPSK Transmission in 43 Gb/s DWDM Long-Haul Dispersion-Managed Optical Systems", *Journal of Lightwave Technology,* vol. 28, no. 10, pp. 1573-1581, May. 15, 2010.
ISSN: 0733-8724, DOI: 10.1109/JLT.2010.2046475

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INTERNATIONAL CONFERENCES

In the below list, the following acronyms are used:

- *OFC: Optical Fiber Communications Conference and Exhibition*
- *ECOC: European Conference on Optical Communications*
- *ICTON: International Conference on Transparent Optical Networks*

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