

## Elenco delle Pubblicazioni Allegate alla domanda del Dott. Stefano Faralli

1. S. Faralli, F. Gambini, P. Pintus, M. Scaffardi, O. Liboiron-Ladouceur, Y. Xiong, P. Castoldi, Member, F. Di Pasquale, N. Andriolli, I. Cerutti, Bidirectional Transmission in an Optical Network on Chip with Bus and Ring Topologies, submitted for the Special Issue Of Photonics in Switching 2015, IEEE Photonics Journal, in press
2. Fabrizio Gambini, Stefano Faralli, Paolo Pintus, Nicola Andriolli, and Isabella Cerutti, "BER evaluation of a low-crosstalk silicon integrated multi-microring network-on-chip", Optics Express, Vol. 23, pp. 17169-17178 (2015)
3. Velha, P.; Faralli, S.; Contestabile, G., "Microring-Based Fully Integrated Silicon DQPSK Receiver," in Photonics Technology Letters, IEEE , vol.27, no.15, pp.1605-1608, Aug.1, 1 2015
4. Stefano Faralli, Gianluca Meloni, Fabrizio Gambini, Jonathan. Klamkin, Luca Poti and Giampiero Contestabile, "A Compact Silicon Coherent Receiver without Waveguide-Crossing", Photonics Journal, IEEE , vol.7, no.4, pp.1-6 (2015)
5. Paolo Pintus, Fabrizio Gambini, Stefano Faralli, Fabrizio Di Pasquale, Isabella Cerutti and Nicola Andriolli, "Ring vs. Bus: a Theoretical and Experimental Comparison of Photonic Integrated NoC", IEEE Lightwave Technology, Journal of , vol. 99, pp.1-1 (2015)
6. C. Clivati, G. Bolognini, D. Calonico, S. Faralli, A. Mura, and F. Levi, "In-field Raman amplification on coherent optical fiber links for frequency metrology," Opt. Express 23, 10604-10615 (2015).
7. F. Bontempi; S. Faralli, Xaveer J.M Leijtens, J. Bolk, G. Contestabile, N. Andriolli , "A 40Gb/s InP-monolithically integrated DPSK-demodulator enhanced by cross-gain-compression in an SOA", Optics Communications; N. 340; 155:158 (2015)
8. J. Klamkin; F. Gambini; S. Faralli; A. Malacarne; G. Meloni; G. Berrettini; G. Contestabile; L. Poti, "A 100-Gb/s noncoherent silicon receiver for PDM-DBPSK/DQPSK signals" Optics Express; Vol. 22; 2150:2158 (2014)
9. Antonio Malacarne, Fabrizio Gambini, Stefano Faralli, Jonathan Klamkin, and Luca Poti, "High-speed Silicon Electro-Optic Microring Modulator for Optical Interconnects", Photonics Technology Letters, IEEE , vol.26, no.10, pp.1042,1044 (2014)

10. F. Bontempi, S. Faralli, N. Andriolli, and G. Contestabile, "An InP Monolithically Integrated Unicast and Multicast Wavelength Converter", IEEE Photonics Technology Letters, N. 25; 2178:2181 (2013)
11. Nicola Andriolli, Stefano Faralli, Francesca Bontempi, and Giampiero Contestabile, "A wavelength-preserving photonic integrated regenerator for NRZ and RZ signals", Optics Express, Vol. 21, Issue 18, pp. 20649-20655 (2013)
12. N. Andriolli, Faralli S., X. J. M. Leijtens, J. Bolk, G. Contestabile, "Monolithically Integrated All-Optical Regenerator for Constant Envelope WDM Signals", IEEE Journal of Lightwave Technology, Vol. 31, No.2 (2013)
13. I. Toccafondo, M. Taki, A. Signorini, F. Zaidi, T. Nannipieri, S. Faralli, and F. Di Pasquale, "Hybrid Raman/FBG Sensor for Distributed Temperature and Discrete Dynamic Strain Measurements", Optics Letters / Vol. 37, No. 21 / November 2012
14. Stefano Faralli, Kimchau N. Nguyen, Jonathan D. Peters, Daryl T. Spencer, Daniel J. Blumenthal, and John E. Bowers, "Integrated hybrid Si/InGaAs 50 Gb/s DQPSK receiver", Optics Express, Vol. 20, Issue 18, pp. 19726-19734 (2012)
15. V. Donzella, V. Toccafondo, S. Faralli, F. Di Pasquale, C. Cassagnettes, D. Barbier, H. Hernandez Figueroa, Ion-exchanged Er<sup>3+</sup>/Yb<sup>3+</sup> co-doped waveguide amplifiers longitudinally pumped by broad area lasers, Optics Express, vol. 18,n. 12, pp. 12690- 12701, May 2010
16. S. Faralli, G. Bolognini, M. A. Andrade, F. Di Pasquale, Unrepeated WDM transmission systems based on advanced first- and higher-order Raman co-pumping technologies, IEEE Journal of Lightwave Technology, Vol.25, n.11, November 2007
17. Fabrizio Gambini, Philippe Velha, Claudio J. Oton and Stefano Faralli, "Demonstration of an Ultra-Compact Photonic Integrated Orbital Angular Momentum Emitter with a Bragg grating Silicon Microring" Accepted to : Optical Fiber Communication Conference, OFC2016
18. Mohammed Shafiqul Hai, Monireh Moayedi Pour Fard, Dong An, Fabrizio Gambini, Stefano Faralli, Giovan Battista Preve and Odile Liboiron-Ladouceur, "Automated testing and characterization of a silicon photonics Mach-zehnder switching matrix", Optical Interconnects Conference (OI),

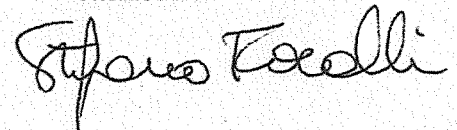
2015, IEEE , vol., no., pp.94-95 (2015)

19. F. Bontempi; N. Andriolli; S. Faralli; J. Klamkin; E. Kleijn; T. De Vries; G. Contestabile, "An InP Monolithically Integrated Multi-Frequency Wavelength Converter", Optical Fiber Communication Conference OFC/NFOEC, 2014 (2014)
20. Nicola Andriolli, Francesca Bontempi, Stefano Faralli, Ernesto Ciaramella, Giampiero Contestabile, "A Novel Photonic Integrated Regenerator", Optical Fiber Communication Proceedings OFC2013, Los Angeles, CA, USA, 2013, paperOW3J.4

Io sottoscritto Stefano Faralli dichiaro, ai sensi delle norme in materia di dichiarazioni sostitutive di cui agli artt.46 e seguenti del D.P.R.445/2000, che tutto quanto riportato nel presente elenco delle pubblicazioni corrisponde a verità

14/12/2015

Stefano Faralli



## Fresi Francesco

### Lista delle 20 pubblicazioni ritenute utili ai fini della selezione

1. **Fresi, F.**; Bontempi, F.; Malacarne, A.; Meloni, G.; Andriolli, N.; Klamkin, J.; Poti, L.; Contestabile, G., "Integrated Reconfigurable Coherent Transmitter Driven by Binary Signals," in Selected Topics in Quantum Electronics, IEEE Journal of , vol.21, no.6, pp.1-10, Nov.-Dec. 2015.
2. **Francesco Fresi**, "Self-Adaptation Technique for Bandwidth-Variable Transponders", Photonics in Switching 2015, Florence, Italy, Sep. 2015.
3. Meloni, G.; Rahman, T.; Napoli, A.; **Fresi, F.**; Sambo, N.; D'Errico, A.; Rafique, D.; Nolle, M.; de Waardt, H.; Bohn, M.; Poti, L., "Experimental Comparison of Transmission Performance for Nyquist WDM and Time-Frequency Packing," in Lightwave Technology, Journal of , vol.PP, no.99, pp.1-1
4. Secondini, M.; Foggi, T.; **Fresi, F.**; Meloni, G.; Cavaliere, F.; Colavolpe, G.; Forestieri, E.; Poti, L.; Sabella, R.; Prati, G., "Optical Time-Frequency Packing: Principles, Design, Implementation, and Experimental Demonstration," in Lightwave Technology, Journal of , vol.33, no.17, pp.3558-3570, Sept.1, 1 2015
5. L. Poti, G. Meloni, G. Berrettini, **F. Fresi**, T. Foggi, M. Secondini, L. Giorgi, F. Cavaliere, S. Hackett, A. Petronio, P. Nibbs, R. Forgan, A. Leong, R. Masciulli, and C. Pfander, "Sub-Nyquist field trial using time frequency packed DP-QPSK super-channel within fixed ITU-T grid," Opt. Express 23, 16196-16208 (2015)
6. Sambo, N; Meloni, G; Cugini, F; **Fresi, F.**; D'Errico, A; Poti, L; Iovanna, P; Castoldi, P,"Routing, Code, and Spectrum Assignment, Subcarrier Spacing, and Filter Configuration in Elastic Optical Networks [Invited]",Journal of Optical Communications and Networking,7,11,B93-B100,2015,Optical Society of America.
7. Sambo, Nicola; Paolucci, Francesco; Meloni, Gianluca; **Fresi, Francesco**; Poti, Luca; Castoldi, Piero; "Control of Frequency Conversion and Defragmentation for Super-Channels" [Invited],Journal of Optical Communications and Networking,7,1,A126-A134,2015,Optical Society of America
8. Cugini, F; **Fresi, F.**; Paolucci, F; Meloni, G; Sambo, N; Giorgetti, A; Foggi, T; Poti, L; Castoldi, P; "Active Stateful PCE With Hitless LDPC Code Adaptation [Invited]",Journal of Optical Communications and Networking,7,2,A268-A276,2015,Optical Society of America
9. Andriolli, N; **Fresi, F.**; Bontempi, F; Malacarne, A; Meloni, G; Klamkin, J; Poti, L; Contestabile, G; "InP monolithically integrated coherent transmitter", Optics express, 23, 8, 10741-10746, 2015, Optical Society of America
10. Paolucci, F; Cugini, **F. Fresi**, F; Meloni, G; Giorgetti, A; Sambo, N; Poti, L; Castro, A; Velasco, L; Castoldi, P; "Superfilter Technique in SDN-Controlled Elastic Optical Networks" [Invited],Journal of Optical Communications and Networking,7,2,A285-A292,2015,Optical Society of America
11. Sambo, Nicola; Meloni, Gianluca; Paolucci, Francesco; Cugini, Filippo; Secondini, Marco; **Fresi, Francesco**; Poti, Luca; Castoldi, Piero; "Programmable transponder, code and differentiated filter configuration in elastic optical networks",Journal of Lightwave Technology,32,11,2079-2086,2014,IEEE
12. Paolucci, Francesco; Castro, Alberto; **Fresi, Francesco**; Imran, Muhammad; Giorgetti, Alessio; Bhowmik, Bishanka Brata; Berrettini, Gianluca; Meloni, Gianluca; Cugini, Filippo; Velasco, Luis; "Active PCE demonstration performing elastic operations and hitless defragmentation in flexible grid optical networks", Photonic Network Communications,29,1,57-66,2014,Springer US

13. **F. Fresi**; M. Secondini; G. Berrettini; G. Meloni; L. Poti, "Impact of Optical and Electrical Narrowband Spectral Shaping in Faster than Nyquist Tb Superchannel", *Photonics Technology Letters, IEEE*, vol.25, no.23, pp.2301,2303, Dec.1, 2013
14. Anis, M.I.; Amaya, N.; Zervas, G.; Pinna, S.; Scaffardi, M.; **Fresi, F.**; Bogoni, A.; Nejabati, R.; Simeonidou, D., "Field Trial Demonstration of Spectrum Defragmentation and Grooming in Elastic Optical Node," *Lightwave Technology, Journal of*, vol.31, no.12, pp.1845,1855, June15, 2013
15. Filippo Cugini, Francesco Paolucci, Gianluca Meloni, Gianluca Berrettini, Marco Secondini, **Francesco Fresi**, Nicola Sambo, Luca Poti, and Piero Castoldi, "Push-Pull Defragmentation without Traffic Disruption in Flexible Grid Optical Networks.", *Lightwave Technology, Journal of*, vol.31, no.1, pp.125,133, Jan.1, 2013
16. Malacarne, Antonio; **Fresi, Francesco**; Klamkin, Jonathan; Poti, Luca, "Versatile offset-free 16-QAM single dual-drive IQ modulator driven by binary signals", *Optics Letters*, Vol. 37 Issue 19, pp.4149-4151 (2012)
17. **Fresi, F.**; Scaffardi, M.; Amaya, N.; Nejabati, R.; Simeonidou, D.; Bogoni, Antonella, "40-Gb/s NRZ-to-RZ and OOK-to-BPSK Format and Wavelength Conversion on a Single SOA-MZI for Gridless Networking Operations," *Photonics Technology Letters, IEEE*, vol.24, no.4, pp.279,281, Feb.15, 2012
18. Thomas S., Malacarne A., **Fresi F.**, Poti L. and Azafía J., "Fiber-Based Programmable Picosecond Optical Pulse Shaper", in *Lightwave Technology, Journal of*, vol.28, no.12, pp.1832-1843, June15, 2010
19. **Fresi, F.**; Porzi, C.; Guina, M.; Orsila, L.; Poti, L.; Bogoni, A.; "Wavelength Transparency of All-Optical Packet Envelope Detection Circuit for RZ-Format Optical Packet Switching Applications", *IEEE Photonics Technology Letters*, Vol. 21, No. 20, Oct.15, 2009 Page(s):1565 - 1567
20. C. Porzi, **F. Fresi**, L. Poti, A. Bogoni, M. Guina, L. Orsila, O. Okhotnikov, and N. Calabretta, "All-Optical Packet Envelope Detection using a Slow Semiconductor Saturable Absorber Gate and a Semiconductor Optical Amplifier", in *Selected Topics in Quantum Electronics, IEEE Journal of*, vol.14, no.3, pp.834-840, May-june 2008.

**ELENCO  
PUBBLICAZIONI E  
TITOLI ALLEGATI**

**Molka Gharbaoui**

**Tesi di dottorato**

Dynamic resource provisioning and security solutions in service-oriented networks

**Tesi di laurea**

Development of an application of monitoring and decision-making aid

**International Journal  
Papers**

- ① • W. Cerroni, M. Gharbaoui, B. Martini, A. Campi, P. Castoldi, F. Callegati, "Cross-layer Resource Orchestration for Cloud Service Delivery: A Seamless SDN Approach," Computer Networks, vol. 87, 2015.
- ② • M. Gharbaoui, F. Paolucci, A. Giorgetti, B. Martini and P. Castoldi, "Effective Statistical Detection of Smart Confidentiality Attacks in Multidomain Networks," IEEE Transactions on Network and Service Management, vol. 10, n. 4, 2013.
- ③ • M. Gharbaoui, B. Martini and P. Castoldi, "Anycast-based Optimizations for Inter-Data Center interconnections (Invited)," IEEE/OSA Journal of Optical Communications and Networking, vol. 4, n. 11, 2012.
- ④ • F. Paolucci, M. Gharbaoui, A. Giorgetti, F. Cugini, B. Martini, L. Valcarengi, and P. Castoldi, "Preserving Confidentiality in PCE-based Multi-domain Networks," IEEE/OSA Journal of Optical Communications and Networking, vol. 3, n. 5, pp. 465 - 474, May. 2011.

**Conference Proceedings  
Papers**

- ⑤ • B. Martini, M. Gharbaoui and P. Castoldi, "Cross-Functional resource orchestration in optical telco clouds," International Conference on Transparent Optical Networks (ICTON), 2015.
- ⑥ • B. Martini, F. Paganelli, A.A. Mohammed, M. Gharbaoui, A. Sgambelluri and P. Castoldi, "SDN controller for context-aware data delivery in dynamic service chaining," IEEE Conference on Network Softwarization (NetSoft), 2015.
- ⑦ • D. Adami, B. Martini, A. Sgambelluri, M. Gharbaoui, P. Castoldi, C. Callegari, L. Donatini, S. Giordano, "Cloud and network service orchestration in Software Defined Data Centers," International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS), 2015.
- ⑧ • S. Ahmed, B. Martini, M. Gharbaoui, A. Sgambelluri, SK. Shariful Alam, "Orchestration Algorithms for Network-assisted Virtual Machine Migrations using OpenDayLight Controller," International Conference on Electrical Information and Communication Technology (EICT), 2015.
- ⑨ • B. Martini, D. Adami, A. Sgambelluri, M. Gharbaoui, L. Donatini, S. Giordano, P. Castoldi, "An SDN orchestrator for resources chaining in cloud data centers," European Conference on Networks and Communications (EuCNC), 2014.
- ⑩ • M. Gharbaoui, B. Martini, D. Adami, G. Antichi, S. Giordano and P. Castoldi "On Virtualization-aware traffic engineering in OpenFlow Data Centers networks". IEEE Network Operations and Management Symposium (NOMS), May 05-09, 2014.

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- 11 • A. Sgambelluri, D. Adami, L. Donatini, M. Gharbaoui, B. Martini, S. Giordano and P. Castoldi **"IT and Network SDN orchestrator for Cloud Data Center"**. IEEE Network Operations and Management Symposium (NOMS), May 05-09, 2014.
- 12 • D. Adami, B. Martini, A. Sgambelluri, M. Gharbaoui, AD. Chiaro, L. Donatini, S. Giordano and P. Castoldi **"An OpenFlow controller for cloud data centers: Experimental setup and validation"**. IEEE International Conference on Communications (ICC), June 10-14, 2014.
- 13 • C. Fung, B. Martini, M. Gharbaoui, F. Paolucci, A. Giorgetti, and P. Castoldi **"Quality of Interaction among path computation elements for trust-aware inter-provider cooperation,"** IEEE International Conference on Communications (ICC), June 10-14, 2014.
- 14 • D. Adami, B. Martini, M. Gharbaoui, G. Antichi, P. Castoldi and S. Giordano **"Effective resource control strategies using OpenFlow in cloud data center"**. IFIP/IEEE International Symposium on Integrated Network Management (IM), May 27-31, 2013.
- 15 • M. Gharbaoui, F. Paolucci, A. Giorgetti, B. Martini, and P. Castoldi **"Guaranteeing confidentiality in multi-domain networks: The PCE Anomaly Detector (PAD)"**. IFIP/IEEE International Symposium on Integrated Network Management (IM), May 27-31, 2013.
- 16 • M. Gharbaoui, B. Martini, W. Cerroni, P. Castoldi and F. Callegati, **"Network resource allocation in data center interconnection with anycast service provisioning"**, IEEE Global Communications Conference (Globecom), 2012.
- 17 • M. Gharbaoui, B. Martini, P. Castoldi **"Dynamic Network Resource Allocation for Inter-Data Centers Communications,"** Optical Fiber Communications (OFC) conference, March 2012. (Corning Outstanding Student Paper Competition semi-finalist)
- 18 • B. Martini, W. Cerroni, M. Gharbaoui, A. Campi, P. Castoldi, F. Callegati, **"Integrated signaling framework for joint reservation of application and network resources for Future Internet"**, IEEE Global Communications Conference (Globecom), 2011.
- 19 • W. Cerroni, B. Martini, M. Gharbaoui, A. Campi, F. Baroncelli, P. Castoldi, F. Callegati: **"SIP-Based Self Configuration of Network Resources for Future Internet Application Services,"** Future Network & Mobile Summit. Florence, Italy 16 - 18 June 2010.
- 20 • W. Cerroni, B. Martini, M. Gharbaoui, A. Campi, F. Baroncelli, P. Castoldi, F. Callegati **"Experimental Validation of a SIP-Based Platform for Service Oriented Optical Network"**. Optical Fiber Communications (OFC) conference, March 2010.

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Francesco Paolucci

## TESI DI LAUREA, DI PERFEZIONAMENTO E ELENCO PUBBLICAZIONI PRESENTATE AI FINI DELLA VALUTAZIONE

(con riferimento al nome del file allegato)

### TESI DI LAUREA VECCHIO ORDINAMENTO

tesi\_laurea.pdf

"Tecnologie e sistemi wireless per la rete di accesso", Rel. Prof. Marco Luise

### TESI DI PERFEZIONAMENTO

tesi\_perfezionamento.pdf

"Network Services for Bandwidth-Greedy Applications", Rel. Prof. Piero Castoldi.

## ELENCO DI 20 PUBBLICAZIONI PRESENTATE AI FINI DELLA VALUTAZIONE

### RIVISTE INTERNAZIONALI

①

JLT\_15\_SR.pdf

A. Sgambelluri, F. Paolucci, A. Giorgetti, F. Cugini, P. Castoldi, "Experimental Demonstration of Segment Routing," in *IEEE Journal of Lightwave Technology*, early access, vol.PP, no.99, pp.1-1 doi: 10.1109/JLT.2015.2473656 (2015)

JOCN\_15\_BGPLS.pdf

②

O. Gonzalez de Dios, R. Casellas, R. Morro, F. Paolucci, V. Lopez, R. Martinez, R. Munoz, R. Vilalta, P. Castoldi, "Multipartner Demonstration of BGP-LS-Enabled Multidomain EON Control and Instantiation with H-PCE [Invited]", *IEEE/OSA Journal of Optical Communications and Networking*, vol.7, issue 12, pp. B153-B162, Dec. 2015, doi: 10.1364/JOCN.7.00B153 (2015) [INVITED PAPER].

JLT\_15\_ABNOMC.pdf

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Li. Gifre, F. Paolucci, O. Gonzalez de Dios, L. Velasco, L. M. Contreras, F. Cugini, P. Castoldi, V. Lopez, "Experimental Assessment of ABNO-driven Multicast Connectivity in Flexgrid Networks", *IEEE Journal of Lightwave Technology*, vol.33, issue 8, pp.1549-1556, April 15, 15 2015, doi: 10.1109/JLT.2015.2392073 (2015) [INVITED PAPER]

JOCN\_15\_REST.pdf

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A. Giorgetti, F. Paolucci, F. Cugini, P. Castoldi, "Dynamic restoration with GMPLS and SDN control plane in elastic optical networks [Invited]," *IEEE/OSA Journal of Optical Communications and Networking*, vol.7, issue 2, pp.A174-A182, February 1 2015, doi: 10.1364/JOCN.7.00A174 (2015) [INVITED PAPER]

PNET\_15\_APCE.pdf

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F. Paolucci, A. Castro, F. Fresi, M. Imran, A. Giorgetti, B. B. Bhowmik, G. Berrettini, G. Meloni, F. Cugini, L. Velasco, L. Poti, P. Castoldi, "Active PCE Demonstration performing Elastic Operations and Hitless Defragmentation in Flexible Grid Optical Networks", *Journal of Photonic Network Communications*, Springer US, vol. 29, issue 1, pp 57-66, Feb. 2015, doi: 10.1007/s11107-014-0464-0 (2015)

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L. Gifre, F. Paolucci, L. Velasco, A. Aguado, F. Cugini, P. Castoldi, V. Lopez, "First Experimental Assessment of ABNO-Driven In-Operation Flexgrid Network Re-Optimization," *IEEE Journal of Lightwave Technology*, vol.33, issue 3, pp.618-624, Feb.1, 1 2015, doi: 10.1109/JLT.2014.2343157 (2015)

J\_JOCN\_15\_SF.pdf

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F. Paolucci, F. Cugini, F. Fresi, G. Meloni, A. Giorgetti, N. Sambo, L. Poti, A. Castro, L. Velasco, and P. Castoldi, "Superfilter Technique in SDN-Controlled Elastic Optical Networks [Invited]," *IEEE/OSA Journal of Optical Communications and Networking*, vol. 7, issue 2, pp. A285-A292, doi: 10.1364/JOCN.7.00A285 (2015) [INVITED PAPER]



- 8 JLT\_14\_IDC.pdf A. Malacarne, F. Paolucci, F. Cugini, A. Mastropaolo, G. Bottari, L. Potì, "Multiplexing of Asynchronous and Independent ASK and PSK Transmissions in SDN-Controlled Intra-Data Center Network", *IEEE Journal of Lightwave Technology*, vol.32, issue 9, pp.1794-1800, May1, 1 2014, doi: 10.1109/JLT.2014.2312536 (2014)
- 9 PNET\_14\_RESTSDN.pdf F. Paolucci, A. Castro, F. Cugini, L. Velasco, P. Castoldi, "Multipath Restoration and Bitrate Squeezing in SDN-based Elastic Optical Networks [Invited]", *Journal of Photonic Network Communications*, Springer US, vol. 28, issue 1, pp 45-57, August 2014, doi: 10.1007/s11107-014-0444-4 (2014) [INVITED PAPER]
- 10 JLT\_14\_PROG.pdf N. Sambo, G. Meloni, F. Paolucci, F. Cugini, M. Secondini, F. Fresi, L. Potì, P. Castoldi, "Programmable Transponder, Code and Differentiated Filter Configuration in Elastic Optical Networks," *IEEE Journal of Lightwave Technology*, vol.32, issue 11, pp.2079-2086, June1, 1 2014, doi: 10.1109/JLT.2014.2319859 (2014)
- 11 SURVEYTUT\_13\_PCE.pdf F. Paolucci, F. Cugini, A. Giorgetti, N. Sambo, P. Castoldi, "A Survey on the Path Computation Element", *IEEE Journal of Communications Surveys & Tutorials*, vol.15, issue 4, pp. 1819-1841, Fourth Quarter 2013, doi: 10.1109/SURV.2013.011413.00087 (2013)
- 12 PNET\_13\_BRPC.pdf F. Paolucci, I. Cerutti, F. Cugini, L. Valcarenghi, P. Castoldi, "Optimal K-Survivable Backward-recursive Path Computation (BRPC) in Multi-domain PCE-based Networks", *Journal of Photonic Network Communications*, Springer US, vol. 26, issue 1, pp 1-12, 2013, doi: 10.1007/s11107-013-0403-5 (2013).
- 13 JLT\_13\_PUSHPULL.pdf F. Cugini, F. Paolucci, G. Meloni, G. Berrettini, M. Secondini, F. Fresi, N. Sambo, L. Potì, P. Castoldi, "Push-Pull Defragmentation without Traffic Disruption in Flexible Grid Optical Networks", *IEEE Journal of Lightwave Technology*, vol. 31, issue 1, pp. 125-133, Jan. 1, 2013, doi: 10.1109/JLT.2012.2225600 (2013)
- 14 TNSM\_13\_MDCONF.pdf M. Gharbaoui, F. Paolucci, A. Giorgetti, B. Martini, P. Castoldi, "Effective Statistical Detection of Smart Confidentiality Attacks in Multi-Domain Networks", *IEEE Transactions on Network and Service Management*, vol. 10, issue 4, pp. 383-397, December 2013, doi: 10.1109/TNSM.2013.111113.130482 (2013)
- 15 TII\_13\_MRP.pdf A. Giorgetti, F. Cugini, L. Valcarenghi, F. Paolucci, A. Pistone, P. Castoldi, "Performance Analysis of Media Redundancy Protocol (MRP)", *IEEE Transaction on Industrial Informatics*, vol. 9, issue 1, pp. 218-227, Feb. 2013, ISSN: 1551-3203, doi: 10.1109/TII.2012.218658 (2013)
- 16 JLT\_12\_FLEX.pdf F. Cugini, G. Meloni, F. Paolucci, N. Sambo, M. Secondini, L. Gerardi, L. Potì, P. Castoldi, "Demonstration of Flexible Optical Network based on Path Computation Element", *IEEE Journal of Lightwave Technology*, vol. 30, issue 5, March1, 2012, doi:10.1109/JLT.2011.2180361 (2012)
- 17 JOCN\_11\_JAPCE.pdf F. Paolucci, N. Sambo, F. Cugini, A. Giorgetti, P. Castoldi, "Experimental Demonstration of Impairment-Aware PCE for Multi Bit-rate WSONs", *Optical Communications and Networking, IEEE/OSA Journal of*, vol.3, issue 8, pp.610-619, August 2011, doi: 10.1364/JOCN.3.000619 (2011)
- 18 JOCN\_11\_PCECONF.pdf F. Paolucci, M. Gharbaoui, A. Giorgetti, F. Cugini, B. Martini, L. Valcarenghi, P. Castoldi, "Preserving Confidentiality in PCE-based Multi-domain Networks", *Optical Communications and Networking, IEEE/OSA Journal of*, vol.3, issue 5, pp.465-474, May 2011, doi: 10.1364/JOCN.3.000465 (2011)
- 19 JOCN\_10\_DBA.pdf F. Paolucci, F. Cugini, P. Iovanna, G. Bottari, L. Valcarenghi, P. Castoldi, "Delay-Bandwidth-Aware Metric Abstraction Schemes for OIF E-NNI Multidomain Traffic Engineering", *Optical Communications and Networking, IEEE/OSA Journal of*, vol.2, issue 10, pp.782-792, October 2010, doi: 10.1364/JOCN.2.000782 (2011)

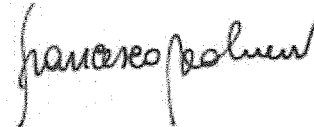
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DATA

Pisa, 14 dicembre 2015

FIRMA



## **Elenco delle Pubblicazioni Presentate ai Fini del Concorso - Claudio Porzi**

1. Claudio Porzi, Francesco Fresi, Nicola Sambo, Antonella Bogoni, and L. Potì, "On the Performance of Advanced Integrated Microring Filters for Switching Applications in Next Generation Elastic Optical Networks", *Photonic Network Communications*, accepted for publication, Springer 233 Spring Street New York, NY 10013-1578 USA
2. Giovanni Serafino, Antonio Malacarne, Claudio Porzi, Paolo Ghelfi, Marco Presi, Antonio D'Errico, Marzio Puleri, and Antonella Bogoni, "Simultaneous beam steering of multiple signals based on optical wavelength-selective switch", *International Journal of Microwave and Wireless Technologies*, vol. 7, pp. 391-398, June 2015, Cambridge University Press University Printing House, Shaftesbury Road, Cambridge, CB2 8BS, United Kingdom
3. Nicola Sambo, Antonio D'Errico, Claudio Porzi, Valeria Vercesi, Muhammad Imran, Filippo Cugini, Antonella Bogoni, Luca Potì, and Piero Castoldi, "Sliceable transponder architecture including multiwavelength source," *Optical Communications and Networking, IEEE/OSA Journal of*, vol.6, no.7, pp.590,600, July 2014, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
4. Paolo Ghelfi, Francesco Laghezza, Filippo Scotti, Giovanni Serafino, Amerigo Capria, Sergio Pinna, Daniel Onori, Claudio Porzi, Mirco Scaffardi, Antonio Malacarne, Valeria Vercesi, Emma Lazzeri, Fabrizio Berizzi, and Antonella Bogoni, "A fully photonics-based coherent radar system", *Nature*, vol. 507, pp. 341-345, March 2014, NPG, The Macmillian Building, 4 Crinan Street, London N1, 9XW, UK.
5. Claudio Porzi, Yasuyuki Kado, Satoshi Shimizu, Akihiro Maruta, Naoya Wada, Antonella Bogoni, and Ken-Ichi Kitayama, "Simple Uplink SOA Pattern Effects Compensation for Reach-Extended 10G-EPONs", *IEEE Photon. Technol. Lett.*, Vol. 26, no. 2, pp. 165 – 168, Jan. 2014, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA
6. Claudio Porzi, Giovanni Serafino, Antonella Bogoni, and Giampiero Contestabile, "Phase-Preserving Amplitude Noise Compression of 40 Gb/s DPSK Signals in a Single SOA", *IEEE J. of Lightw. Technol.*, vol. 32, no. 10, pp. 1966-1972, May. 2014, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
7. Claudio Porzi, Sanghoon Chin, Andrea Trita, Francesco Fresi, Gianluca Berrettini, Gabor Mezosi, Paolo Ghelfi, Guido Giuliani, Luca Potì, Marc Sorel, Luc Thévenaz, and Antonella Bogoni, "Application of Brillouin-Based Continuously Tunable Optical Delay Line to Contention Resolution Between Asynchronous Optical Packets", *IEEE J. of Lightw. Technol.*, vol. 31, no. 17, pp. 2888-2896, Sept. 2013, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
8. Claudio Porzi, Gianluca Meloni, Marco Secondini, Luca Potì, Giampiero Contestabile, and Antonella Bogoni, "All-optical switching of QPSK signals for 100 G coherent systems", *IEEE J. of Lightw. Technol.*, vol. 30, no. 18, pp. 3010-3016, Sept. 2012, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
9. Claudio Porzi, Antonella Bogoni, and Giampiero Contestabile, "Regeneration of DPSK signals in a saturated SOA", *IEEE Photon. Technol. Lett.*, Vol. 24, no. 18, pp. 1597 – 1599, Sept. 2012, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA

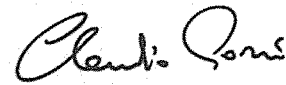


10. Claudio Porzi, Giampiero Contestabile, and Antonella Bogoni, "All-optical simultaneous drop and wavelength conversion of DPSK data", *Optics letters*, vol. 37, no. 13, pp. 2523-2525, July 2012, OSA 2010 Massachusetts Ave, NW, Washington, DC 20036 USA.
11. Marco Presi, Nicola Calabretta, Claudio Porzi, Raffaele Corsini, Giampiero Contestabile, and Ernesto Ciaramella, "1 × 8 self-routing of 40 Gbit/s phase-modulated packets", *Electron. Lett.*, vol. 48, no. 3, pp. 169-171, Feb 2102, IET Six Hills Way, Stevenage, Hertfordshire, SG1 2AY, UK.
12. An Nguyen, Claudio Porzi, Giovanni Serafino, Francesco Fresi, Giampiero Contestabile, and Antonella Bogoni, "All-optical gated wavelength converter-eraser using a single SOA-MZI", *IEEE Photonics Technology Letters*, Vol. 23, no. 21, pp. 1621 – 1623, Nov. 2011, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
13. Claudio Porzi, Mirco Scaffardi, Luca Potì, and Antonella Bogoni, "Optical Digital Signal Processing in a Single SOA without Assist Probe Light", *IEEE J. Of Select. Topics in Quantum Electron.*, vol. 16, no. 5, pp. 1469 - 1475 September/October 2010, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
14. C. Porzi, L. Ma, M. Yao, L. Potì, A. Bogoni, " All-Optical Low-Power 2x2 Cross/Bar Switch With a Single Semiconductor Optical Amplifier", *IEEE Photonics Technology Letters*, Vol. 22, no. 17, pp. 1327 – 1329, August 2010, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
15. Claudio Porzi, An Nguyen, Luca Potì, and Antonella Bogoni, "Binary-to-Quaternary ASK Encoding in the Optical Domain With Semiconductor Optical Amplifiers", *IEEE Photon. Technol. Lett.*, vol. 21, no. 10, pp. 654-656, May 2009, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
16. Claudio Porzi, Francesco Fresi, Luca Potì, Antonella Bogoni, Mircea Guina, Lasse Orsila, Oleg Okhotnikov, and Nicola Calabretta, "All-Optical Packet Envelope Detection using a Slow Semiconductor Saturable Absorber Gate and a Semiconductor Optical Amplifier", *IEEE J. of Select. Topics in Quantum Electron.*, vol. 14, no 3, pp. 834-840, May/June 2008, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
17. Claudio Porzi, Mircea Guina, Antonella Bogoni, and Luca Potì, "All-Optical NAND/NOR Logic Gates based on Semiconductor Saturable Absorber Etalons", *IEEE J. of Select. Topics in Quantum Electron.*, vol. 14, no 3, pp. 927-937, May/June 2008, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
18. Claudio Porzi, Nicola Calabretta, and Mircea Guina, "All-optical seed pulse extraction for packet synchronization based on self-induced effects in a vertical-cavity semiconductor gate", *IEEE Photon. Technol. Lett.*, Vol. 18, N. 14, pp. 1509-1511, July 2006, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.
19. Claudio Porzi, Antonella Bogoni, Luca Potì, and Giampiero Contestabile, "Polarization- and Wavelength- Independent Time-Division Demultiplexing based on Copolarized-Pumps Four Wave Mixing in Semiconductor Optical Amplifiers", *IEEE Photon. Technol. Lett.*, Vol. 17, N. 3, pp. 633-635, March 2005, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.

20. Antonella Bogoni, Luca Poti, Claudio Porzi, Mirco Scaffardi, Paolo Ghelfi, and Filippo Ponzini, "Modelling and Measurement of Noisy SOA Dynamics for Ultra-Fast Applications", IEEE J. of Select. Topics in Quantum Electron., Vol. 10, N. 1, pp. 197-205, Jan.-Feb. 2004, IEEE, 445 Hoes Lane, Piscataway, NJ 08854, USA.

Pisa 14/12/2015

Claudio Porzi

A handwritten signature in black ink, appearing to read "Claudio Porzi". The signature is written in a cursive style with a large initial 'C'.A small, stylized handwritten mark or signature in the bottom right corner of the page, possibly a monogram or initials.

## Elenco dei titoli allegati

Il/la sottoscritto/a PIER GIORGIO RAPONI  
nato a ROVERETO (TN) il 8/9/1982  
residente a ROVERETO (TN) in LUNGO LENO SINISTRO n. 100

### DICHIARA

di aver allegato alla presente domanda i seguenti titoli.

Capitoli di libri in pubblicazioni internazionali:

- ① O. Liboiron-Ladouceur, N. Andriolli, I. Cerutti, P. Castoldi, and P. G. Raponi, "Energy-Efficient Photonic Interconnects for Computing Platforms," in Lukas Chrostowski and Kris Iniewski (Eds.), High Speed Interconnects, CRC Press, March 2013, ISBN: 978-1466516038.

Articoli pubblicati in conferenze internazionali:

- ② P.G. Raponi, N. Andriolli, P. Castoldi and A. Bianchi, "Multi-Card Wavelength Scheduling in Modular Optical Packet Switches," OFC/NFOEC 2009, OML1, Mar. 22–26 2009, San Diego, California
- ③ P.G. Raponi, N. Andriolli, P. Castoldi, "Analysis of the Two-Step Scheduling Framework with Transfer Speedup under Non-Uniform Traffic," IEEE International Conference on Communications (ICC), pp. 1–6, May 23–27 2010, Cape Town, South Africa doi:10.1109/ICC.2010.5502647
- ④ P.G. Raponi, F. Petrini, R. Walkup, F. Checoni, "Characterization of the Communication Patterns of Scientific Applications on Blue Gene/P," IEEE International Symposium on Parallel and Distributed Processing Workshops and Phd Forum (IPDPSW) 2011, pp.1017–1024, May 16–20, 2011, Anchorage, Alaska, USA doi: 10.1109/IPDPS.2011.249
- ⑤ P. Castoldi, N. Andriolli, I. Cerutti, O. Liboiron-Ladouceur, P.G. Raponi, "Energy Efficiency and Scalability of Multi-plane Optical Interconnection Networks for Computing Platforms and Data Centers," Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC/NFOEC), paper OW3J.4, March 4–8, 2012, Los Angeles, California, USA (invited paper)
- ⑥ P.G. Raponi, N. Andriolli, I. Cerutti, P. Castoldi, O. Liboiron-Ladouceur, "Physical Layer Scalability of Energy-Efficient Heterogeneous Optical Space Switches," Optical Interconnects Conference (OI Conference 2012), paper TUP28, pp. 106–107, May 20–23, 2012, Santa Fe, New Mexico, USA doi:10.1109/OIC.2012.6224424
- ⑦ P.G. Raponi, N. Andriolli, I. Cerutti, P. Castoldi, O. Liboiron-Ladouceur, "Heterogeneous Space Switches for Power-Efficient Optical Interconnection Networks," IEEE International Conference on Communications 2012 (ICC '12), pp.3036-3040, June 10–15, 2012, Ottawa, Canada. doi: 10.1109/ICC.2012.6363696
- ⑧ I. Cerutti, K. Abdallah, P.G. Raponi, P. Castoldi, "Modeling and Optimizing the Delay-Energy Tradeoff in TDM Systems with Sleep Mode," IEEE Conference on High Performance Switching and Routing (HPSR 2012), pp. 236–241, June 24–27, 2012, Belgrade, Serbia doi: 10.1109/HPSR.2012.6260856
- ⑨ O. Liboiron-Ladouceur, X. Lu, C. Zhang, P. Liao, P.G. Raponi, I. Cerutti, N. Andriolli, "RODIN - Energy-proportional SOA-based Optical Interconnect for Large Computing Platforms," Optical Interconnects Conference (OI Conference 2013), paper TUP4, pp. 74-75, May 5--8, 2013, Santa Fe, New Mexico, USA doi: 10.1109/OIC.2013.6552935
- ⑩ P. Pintus, P. Contu, N. Andriolli, I. Cerutti, P.G. Raponi, "Modeling a Multi Microring (MMR) Network-on-Chip," Optical Interconnects Conference (OI Conference 2013), paper TUP7, pp. 80-81, May 5--8, 2013, Santa Fe, New Mexico, USA doi: 10.1109/OIC.2013.6552938
- ⑪ P. Castoldi, I. Cerutti, P. G. Raponi, N. Andriolli, O. Liboiron-Ladouceur, "Energy-Efficient Space-Time Optical Interconnection Architectures for Data Centers," 15th International Conference on

Transparent Optical Networks (ICTON 2013), June 23-27, 2013, Cartagena, Spain.  
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- 12 I. Cerutti, N. Andriolli, P. G. Raponi, P. Castoldi, "Optics in Data Center: Improving Scalability and Energy Efficiency," 2014 European Conference on Networks and Communications (EuCNC), pp. 1-5, June 23--26, 2014, Bologna, Italy. doi:10.1109/EuCNC.2014.6882675

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- 13 P.G. Raponi, N. Andriolli, I. Cerutti, P. Castoldi, "Two-step scheduling framework for space-wavelength modular optical interconnection networks," IET Communications, vol.4, no.18, pp. 2155-2165, December 17 2010 doi:10.1049/iet-com.2010.0118
- 14 O. Liboiron-Ladouceur, I. Cerutti, P.G. Raponi, N. Andriolli, P. Castoldi, "Energy-Efficient Design of a Scalable Optical Multiplane Interconnection Architecture," IEEE Journal of Selected Topics in Quantum Electronics, vol.17, no.2, pp.377-383, March/April 2011 doi: 10.1109/JSTQE.2010.2049733
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- 17 L. Valcarenghi, D. Pham Van, P. G. Raponi, P. Castoldi, D. R. Campelo, Shing-Wa Wong, She-Hwa Yen, L.G. Kazovsky, and S. Yamashita, "Energy Efficiency in Passive Optical Networks: Where, When, and How?," IEEE Network, vol.26, no.6, pp. 61-68, Nov/Dec 2012 doi:10.1109/MNET.2012.6375895
- 18 I. Cerutti, P. G. Raponi, N. Andriolli, P. Castoldi, O. Liboiron-Ladouceur, "Designing Energy-Efficient Data Center Networks Using Space-Time Optical Interconnection Architectures," IEEE Journal of Selected Topics in Quantum Electronics, vol.19, no.2, pp. 290-298, March/April 2013 doi:10.1109/JSTQE.2012.2234442
- 19 P. G. Raponi, N. Andriolli, I. Cerutti, D. Torres, O. Liboiron-Ladouceur, and P. Castoldi, "Heterogeneous Optical Space Switches for Scalable and Energy-Efficient Data Centers," Journal of Lightwave Technology, vol. 31, no. 11, pp. 1713-1719, June 1, 2013. doi:10.1109/JLT.2013.2257681
- 20 P. Pintus, P. Contu, P. G. Raponi, I. Cerutti, and N. Andriolli, "Silicon-based all-optical multi microring network-on-chip," Optics Letters, vol.39, no.4, pp. 797--800, February 15, 2014. doi:10.1364/OL.39.000797