

VALTER FERRERO

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Was born [REDACTED], Italy, on September 25th, 1968.

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Valter Ferrero is currently an Assistant Professor at Politecnico di Torino His curriculum is briefly reported in the following:

- 1994 Laurea Degree: 110/110 "cum laude", Politecnico di Torino, Electronic Engineering
- 1995-1996 Researcher at Marconi Communications in Genoa (Italy)
- 1996 Coordinator for the Optical Laboratory at Politecnico di Torino
- 2001 Assistant Professor at Politecnico di Torino

MAIN RESEARCH PROGRAMS

- 1994 Coherent transmission systems in optical fiber, using continuous-phase frequency modulation (CPFSK)
- 1995 -1996 Experiments and implementation of commercial Erbium-Doped fiber optical Amplifiers (Activity carried out at Marconi Communications)
- 1997 -1999 European Community Project ACTS CRABS (Cellular Radio Access for Broadband Services), whose contribution has been the study and the implementation of a prototype of passive optical network for the distribution of interactive television signals)
- 1999- 2001 RINGO project, financed by MIUR-COFIN99, study and implementation of a prototype of packet optical network.
- 2001-2003 Study and experiment on Optical coherent communications by using Optical PLL
- 2004 – Study of a free space optical payload: research commissioned by ASI to Alcatel Alenia
- 2005 – 2007 STORiCo project, financed by MIUR-COFIN2005, study and implementation of optical transmission system based on coherent detection
- 2004 – 2007 Research activity on Free Space Optical Communications

CURRENT RESEARCH ACTIVITY

- DWDM Transmission
- Polarization and non-linear effects in optical systems
- Simulation and characterization of optical communication systems
- WDM packet optical networks
- Characterization of high speed optical communication systems
- Optical coherent transmissions
- Optical free space communications

PUBLICATIONS

- 1] FERRERO V., GAUDINO R., POGGIOLOGINI P., BENEDETTO S. (2000). **MAPON: Master Antenna Passive Optical Network for the distribution of digital video broadband services in the European ACTS-CRABS Project.** WIRELESS PERSONAL COMMUNICATIONS. vol. 14/2, pp. 165-182.

- 2] DEL DUCE V., FERRERO V. (1998). **Sistemi Wireless-wireline broadband**. ALTA FREQUENZA. vol. 10/2, pp. 4-9.
- 3] CARENA A., FERRERO V., GAUDINO R., DE FEO V., NERI F., POGGIOLINI P. (2002). **RINGO: A demonstrator of WDM optical packet network on a ring topology**. ONDM 2002. February. Turin, Italy.
- 4] FERRERO V., POGGIOLINI P., CARANGELO P. (2002). **Distribution of digital video broadband interactive services over low-cost WDM bi-directional Passive Optical Network**. OFC 2002.
- 5] GAUDINO R., CARENA A., FERRERO V. (2002). **System impact of EDFA gain fluctuation in WDM optical packet networks**. OFC 2002. March. (vol. ThGG104, pp. 759-760). Anaheim, CA, U.S.A.
- 6] BIANCO A., CARANGELO P., CARENA A., DE FEO V., FERRERO V., GAUDINO R., GIGANTE P., LEONARDI E., NERI F., POGGIOLINI P. (2001). **Progetto Ringo: sperimentazione di reti WDM a commutazione di pacchetto**. FOTONICA 2001. June. (pp. 187-190 / Paper A5.6).
- 7] GAUDINO R., CARENA A., FERRERO V., POZZI A., DE FEO V., GIGANTE P., NERI F., POGGIOLINI P. (2001). **RINGO: a WDM ring optical packet network demonstrator**. ECOC 2001. October. (vol. 4, pp. 620-621 / Paper Th.L.2.6).
- 8] NERI F., BIANCO A., CARENA A., DE FEO V., FERRERO V., GAUDINO R., GIGANTE P., LEONARDI E., POGGIOLINI P., POZZI A. (2001). **Prototipo Sperimentale di rete MAN ottica ad anello a commutazione di pacchetto**. Workshop IEEE-LEOS -Reti ottiche di nuova generazione: architetture e tecnologie. June 18. (vol. Atti, pp. 28-36).
- 9] FERRERO V. (1999). **Distribution of millimetre radio broadband services within buildings using optical fibres**. WORKSHOP on Cellular Radio Access for Broadband Services. March 15-16.
- 10] FERRERO V., CARENA A., CURRI V., POGGIOLINI P. (1999). **MAPON digital video distribution in the European ACTS CRABS Project: Simulation and Experiment**. LEOS '99. November. (pp. 277-278 / Paper TuR5).
- 11] FERRERO V., GAUDINO R., POGGIOLINI P. (1999). **Passive Optical Network for the distribution of digital video broadband services in the European ACTS-CRABS Project**. 4th Personal Wireless Communications 1999. April 22-23.
- 12] FERRERO V., GAUDINO R., POGGIOLINI P., BENEDETTO S. (1999). **Passive optical network for the distribution of digital video broadband services in the European ACTS CRABS project**. PWC '99 - 4th Workshop on Personal Wireless Communications.
- 13] FERRERO V., POGGIOLINI P., BENEDETTO S. (1999). **Master Antenna Passive Optical Network per la distribuzione di servizi televisi digitali a larga banda nel progetto europeo ACTS CRABS**. FOTONICA '99. June. (pp. 33-36 / Paper A2.3).

- 14] FERRERO V., POGGIOLINI P. (1998). **Distribution of digital video broadband services by master antenna passive optical network.** NOC'98, Conference on Broadband Access and Network Management. June. (pp. 186-191).
- 15] FERRERO V., POGGIOLINI P. (1998). **Master Antenna Passive Optical Network for the distribution of digital video broadband services in the European ACTS CRABS Project.** LEOS '98. December 1-4. (vol. 2, pp. 40-41 / Paper ThE2).
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- 17] ALBERICO G., ALSOS O., DEBEGER G., DEL DUCE V., FERRERO V., GRONDALEN O., HANSEN P.S., KOURTIS A., LEROVANTE A., PLACIDI G.B., ROSSINI M., SARDELLA V. SEDINI A. TEODORI S. (1999). **Interactive broadband technology network.** Final Report D4P4 ACTS CRABS Project. January 25.
- 18] BUCAILLE I., BURGESS A., COPPOLA G., EVANS D., FERRERO V., GERMON R., KOUDELKA O., KOURTIS T., NORDBOTTEN A., LOKTU H., NORBURY J., OREFICE M. (1999). **Specificatuiions of next generation of LMDS architecture.** Final Report D2P1B ACTS CRABS Project. February 2.
- 19] S. CAMATEL, V. FERRERO, R. GAUDINO, P. POGGIOLINI, P. BRAVETTI, G. COLI, A.P.S.KHANNA(2003) **10 Gbit/s 2-PSK transmission and homodyne coherent detection using commercial optical components.** ECOC 2003 (September 21-26)
- 20] A. BIANCIOTTO, A. CARENA, V. FERRERO, AND R. GAUDINO (2003) **EDFA gain transients: experimental demonstration of a low cost electronic control.** Photonics Technology Letters
- 21] Camatel, S.; Ferrero, V.; Gaudino, R.; Poggolini, P., "Optical phase-locked loop for coherent detection optical receiver", Electronics Letters , Volume: 40 , Issue: 6 , March 2004, Pages: 384 – 385
- 22] S. Camatel and V. Ferrero, "Homodyne Coherent Detection of ASK and PSK signals performed by a Subcarrier Optical Phase-Locked Loop," *IEEE Photonics Technology Letters*, vol. 18, no. 1, pp. 142-144, Jan. 2006.
- 23] S. Camatel and V. Ferrero, "2.5 Gbps 2-PSK Ultra-Dense WDM Homodyne Coherent Detection Using a Sub-Carrier based Optical Phase-Locked Loop," *IEEE Photonics Technology Letters*, vol. 18, no. 18, pp. 1919-1921, Sep. 2006.
- 24] Poggolini, P.; Nespoli, A.; Abrate, S.; Ferrero, V.; Lezzi, C.; "Long-Term PMD Characterization of a Metropolitan G.652 Fiber Plant," *IEEE Journal of Lightwave Technology*, Volume 24, Issue 11, Nov. 2006 Page(s):4022 - 4029 Digital Object Identifier 10.1109/JLT.2006.884229
- 25] S. Camatel and V. Ferrero, "Phase Noise Power Spectral Density Measurement of Narrow Linewidth CW Lasers Using an Optical Phase-Locked Loop", *IEEE Photonics Technology Letters*, vol. 18, no. 23, pp. 2529-2531, Dic. 2006.