

FRANCESCO LAGHEZZA – List of Publications

Journal

Invited Contributions

- [1]. Bogoni A., Ghelfi P., **Laghezza F.**, Scotti F., Serafino G., Pinna S. “Photonic technologies for fully digital radar systems”, Proc. on OPTICS EXPRESS, September 2013
- [2]. **Laghezza F.**, Berizzi F., Capria A., Cacciavano A., Ghelfi P., Serafino G., Bogoni A.. “Reconfigurable Radar Transmitter Based on Photonic Microwave Signal Generation”. International Journal of Microwave and Wireless Technologies Volume 3, Special Issue 03, pp 383-389. 2011.

Regular Contributions

- [1]. Pupillo G., Salerno E., Pluchino S., Bartolini M., Montebugnoli S., Di Martino M., Righini S., Schillirò F., Berizzi F., Dalle Mese E., **Laghezza F.**, Konvalenko A.A., Nabatov A., “A potential Italian radar network for NEO and space debris observations”, Mem. S.A.It. Suppl. Vol. 16, 59, 2011
- [2]. Ghelfi P. Scotti F., **Laghezza F.**, Bogoni A., "Photonic Generation of Phase-Modulated RF Signals for Pulse Compression Techniques in Coherent Radars", IEEE Journal of Lightwave Technology, vol. 30, Page(s): 1638-1644, 2012
- [3]. Ghelfi P., Scotti F., **Laghezza F.**, Bogoni A., "Phase Coding of RF Pulses in Photonics-Aided Frequency-Agile Coherent Radar Systems", IEEE Journal of Quantum Electronics, vol. 48, Page(s): 1151-1157, 2012
- [4]. Ghelfi P., Scotti F., Serafino G. **Laghezza F.**, Bogoni A. “Flexible receiver for multiband orthogonal frequency division multiplexing signals at the millimeter waveband based on optical downconversion”, Optics Letters / Vol. 37, No. 18 / September 15, 2012.

Conferences

Invited contributions

- [1]. Bogoni A., Ghelfi P., Serafino G., **Laghezza F.**, Scotti F. “Photonics Techniques for the Flexible Generation of Ultra-Stable Microwave and Millimeterwave Radar Signals” International Photonics and Opto Electronics Meetings (POEM 2012) Nov. 1-2, 2012
- [2]. Bogoni A, Ghelfi P, **Laghezza F.**, Scotti F, “Photonics for new generation fully-digital radar and wireless communication systems: from the photonic-based RF signal generation to the optical RF sampling” IWT, Santa Rita do Sapucaí, Brazil, May 2013.
- [3]. Bogoni A, Ghelfi P, **Laghezza F.**, Scotti F., Serafino G., Pinna S., “Photonic-assisted RF transceiver” in Proc. on ECOC 2013.
- [4]. Bogoni A., Ghelfi P. **Laghezza F.**, Scotti F. Serafino G., Pinna S., “PHODIR: Photonic-based fully digital radar system” in Proc. on MWP 2013.

Regular contributions

- [1]. **Laghezza F.**, Berizzi F., Capria A., Dalle Mese E., Montebugnoli S., Pupillo G., Salerno E., Di Martino M. "Italian Bistatic Radar System for Surveillance of space Debris in Low Earth Orbit". IEEE Radar Conference 2010. 10-14 May 2010, Washington DC (USA).
- [2]. **Laghezza F.**, Berizzi F., Capria A., Ricci A.M, Carulli V., Trinci R.. “Low Earth Orbit Space Debris Detection”. IEEE GOLD 2010. 29-30 April 2010, Livorno (Italy).
- [3]. **Laghezza F.**, Berizzi F., Capria A., Cacciavano A., Ghelfi P., Serafino G., Bogoni A. “Reconfigurable Radar Transmitter Based on Photonic Microwave Signal Generation”. European Radar Conference 2010 (EURAD). Sept/Oct 01 - 02 , Parigi (France).
- [4]. **Laghezza F.**, F., Capria A., Cacciavano A., Berizzi Ghelfi P., Bogoni A. “Electro optical radar transmitter chain modelin and simulation”. International Radar Symposium (IRS 2011) September 06 - 09 2011, Leipzig (Germany).
- [5]. **Laghezza F.**, Scotti F., Ghelfi P., Bogoni A., “Flexible Photonic Generation of Low Phase Noise Phase Coded Radar Pulses”, Optronics in Defence and Security (OPTRO), Feb. 2012, Paris, France.

- [6]. Scotti F., **Laghezza F.**, Ghelfi P., Bogoni A.. “Photonics Generation of Phase-Modulated RF Pulses with Carrier Frequency Agility for Software Defined Coherent Radar” . ”OFC/NFOEC 2012, March 4-8, 2012 in Los Angeles, California, USA.
- [7]. Ghelfi P., Scotti F., Serafino G., **Laghezza F.**, Bogoni A., “Flexible Multi-Band OFDM Receiver Based on Optical Down-Conversion for Millimeter Waveband Wireless Base Stations” Proc on ECOC 2012.
- [8]. **Laghezza F.**, Scotti F., Ghelfi P., Berizzi F., Bogoni A., “Photonic Generation of Microwave Phase Coded Radar Signal”, Proc on IET International Radar Conference, Glasgow, Oct. 2012.
- [9]. **Laghezza F.**, Scotti F., Ghelfi P., Pinna S., Bogoni A, “Jitter-Limited Photonic Analog-to-Digital Converter with 7 Effective Bits for Wideband Radar Applications”, International Radar Conference 2013.
- [10]. Scotti F., **Laghezza F.**, Pinna S., Ghelfi P., and Bogoni A., “High Precision Photonic ADC with Four Time-Domain-Demultiplexed Interleaved Channels”, Proc on Photonics in Switching Conference.2013
- [11]. Pierno L., Fiorello A. M., Bogoni A., Ghelfi P., **Laghezza F.**, Scotti F. “Optical switching matrix as Time Domain Demultiplexer in photonic ADC”, Proc on European Microwave Integrated Circuits Conference 2013.

Patents

- [1]. Ghelfi P., Scotti F., **Laghezza F.**, and Bogoni A., "PHOTONIC RF GENERATOR", P35908, Italy, 2012
- [2]. Ghelfi P., Scotti F., **Laghezza F.**, Serafino G., Pinna S., Bogoni A.; "Flexible True-Time-Delay Beamforming in a Photonics-Based RF Broadband transmitter".