

# **2012 International Workshop on Optical Wireless Communications (IWOW 2012)**

**Pisa, Italy  
22 October 2012**



**IEEE Catalog Number: CFP1263T-PRT  
ISBN: 978-1-4673-2733-6**

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## Registration (8.30 – 9:15)

### Welcome Speech

- 9.15 G. Prati  
*Director of Institute of Communication, Information and Perception Technologies (TeCIP)*

## Session 1: Outdoor system experiment

**Chair:** C. Capsoni

- 9.30 A. Destrez, Z. Toffano and P. Leon;  
*'Underwater High Bit-Rate Optical Free-Space Communication System' .....*
- 9.45 C. Capsoni, L. Luini and R. Nebuloni;  
*'Site Diversity: A Promising Technique to Counteract Cloud Attenuation on Earth-Space Optical Links' .....*
- 10.00 M. Ijaz, Z. Ghassemlooy, H. Le Minh, S. Rajbhandari and J. Perez;  
*'Analysis of Fog and Smoke Attenuation in a Free Space Optical Communication Link under Controlled Laboratory Conditions' .....*
- 10.15 Y. Arimoto, A. Chiuchiarelli, R. Corsini, M. Presi and E. Ciaramella;  
*'Carrier Class Availability in a Transparent 1.25 Gb/s Free Space Optical Communication Link over 320 m' .....*
- 10.30 Jiri Libich, Stanislav Zvanovec and Jakub Vojtech;  
*'Measurement Statistics of Three Joint Wireless Optical Links' .....*

## Coffee break (10.45 – 11.15)

## Session 2: Indoor system modeling and design

**Chair:** E. Ciaramella

- 11.15 D. R. Kolev, K. Wakamori, M. Matsumoto, T. Kubo, T. Yamada and N. Yoshimoto;  
*'Gigabit Indoor Laser Communication System for a Mobile User with MEMS Mirrors and Image sensors' .....*
- 11.30 T. A. Tran and D. C. O'Brien;  
*'Performance metrics for Multi-Input Multi-Output (MIMO) Visible Light Communications' .....*
- 11.45 H. Chun, C. J. Chiang and D. C. O'Brien;  
*'Visible Light Communication using OLEDs: Illumination and Channel Modeling' .....*
- 12.00 A. Burton, H. Le Minh, Z. Ghassemlooy and S. Rajbhandari;  
*'A Study of LED Luminance Uniformity with Mobility for Visible Light Communications' .....*
- 12.15 S. S. Torkestani, S. Sahuguede, A. Julien-Vergonjanne, L. Aveneau, P. Combeau and O. Gueu;  
*'Outage Probability Performance in Mobile Indoor Optical Wireless Communication Environment' .....*
- 12.30 A. Geda and A. Czulwik;  
*'Noise Analysis and Equalization of a Multi-Photodiode Optical Wireless Receiver' .....*

## Launch (12.45 – 14.30)

### Session 3: Outdoor system modeling and design

**Chair:** R. Green

- 14.30 A. Jurado-Navas, J. M. Garrido-Balsells, J. F. Paris, M. Castillo-Vázquez and A. Puerta-Notario;  
*'Further insights on Málaga distribution for atmospheric optical communications'* .....
- 14.45 A. Andò, S. Mangione, L. Curcio, S. Stivala, G. Garbo, A. Busacca, G. M. Tosi Beleffi and F. Marzano;  
*'Rateless Codes Performance Tests On Terrestrial FSO Time-Correlated Channel Model'* .....
- 15.00 C. Gabriel, M. A. Khalighi, S. Bourennane, P. Leon and V. Rigaud;  
*'Investigation of Suitable Modulation Techniques for Underwater Wireless Optical Communication'* .....
- 15.15 S. Mori, F.S. Marzano, F. Frezza, G.M. Tosi Beleffi, V. Carrozzo, A. Busacca and A. Andò;  
*'Model Analysis of Hydrometeor Scattering Effects on Free Space Near-Infrared Links'* .....
- 15.30 Y. Ata, Y. Baykal and H. Gerçekcioğlu;  
*'Transmittance for Dense Wavelength Division Multiplexing System in non-Kolmogorov Turbulence'* .....
- 15.45 G. Yang, M. A. Khalighi, T. Virieux, S. Bourennane and Z. Ghassemloooy;  
*'Contrasting Space-Time Schemes for MIMO FSO Systems with Non-Coherent Modulation'* .....

## Coffee break (16.00 – 16.30)

### Session 4: In-home high speed systems

**Chair:** R. Corsini

- 16.30 T. Kubo, T. Yamada, K-I. Suzuki, N. Yoshimoto, T. Umeki, M. Asobe, D. R. Kolev, and M. Matsumoto;  
*'1.25 G-b/s 2-m Indoor Visible Light Transmission Employing Wavelength Conversion with Quasi Phase Matching Device'* .....
- 16.45 G. Cossu, A. M. Khalid, P. Choudhury, R. Corsini, M. Presi and E. Ciaramella;  
*'VLC-Signals Distribution over GI-POF for In-Home Wireless Networks'* .....
- 17.00 P. M. Butala, J. C. Chau and T. D. C. Little;  
*'Metameric Modulation for Diffuse Visible Light Communications with Constant Ambient Lighting'* .....
- 17.15 M. Biagi, A. M. Vegni and T. D.C. Little;  
*'LAT Indoor MIMO-VLC Localize, Access and Transmit'* .....

### Session 5: Round Table and conclusions remarks

**Chairs:** E. Ciaramella and M. Uysal