FOPS

Optical Fibers and Signal Processing Group (FOPS)

VNIVERSITAT DE VALÈNCIA

Workshop

Optical Fibers and Signal Processing

The research group Optical Fibers and Signal Processing organizes the 2018 edition of the workshop with the participation of groups PROMETEO/2016/079 and PROMETEOII/2015/015.
Valencia, Friday 14th December 2018.
Venue: Salón de Grados Lise Meitner, Facultad de Física, Campus de Burjassot, Valencia.

SPONSORS

GENERALITAT VALENCIANA

AVI AGÈNCIA VALENCIANA DE LA INNOVACIÓ

FOPS

PROMETEO 2016/079
GENERALITAT VALENCIANA

DIGITAL LIGHT

GHPO

PROMETEOII 2015/015

Organizer
Miguel V. Andrés

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Scientific Committee
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Pedro Andrés
Manuel Martínez
Jesús Lancis
Augusto Beléndez
José Luis Cruz

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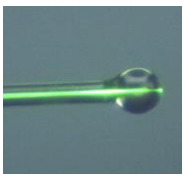
INTRODUCTION

The research group ***Fibras Ópticas y Procesado de Señal*** (FOPS) from the **University of Valencia** organizes the 2018 edition of this workshop, with the participation of the groups PROMETEO/2016/079 from the University Jaume I and PROMETEOII/2015 /015 from the University of Alicante.

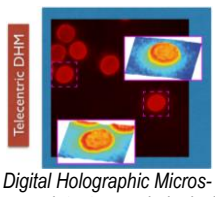
The members of **FOPS group** belong either to the **Institute of Material Science** or to the **Department of Optics** and are orga-nized in three research units: the *Laboratory of Fiber Optics*, the *Modelling and Design of Photonic Components Unit,* and the *3D Imaging and Display Laboratory*.

The research of the group is focused on:

- Fabrication of photonic crystal fibers and special fiber components for lasers and new light sources, sensors and microwave photonics,
- Modeling and design of microstructured optical fibers and photonic devices as integrated microresonators and silicon waveguides, and
- 3D integral imaging systems, high resolution scanning microscopy and design of new diffractive elements.



Tunable high Q microcavity with all-optical control



Digital Holographic Microscopy detects morphological changes in red-blood cells.

GOALS

- Dissemination of group activities.
- Strengthening and promotion of scientific collaborations.
- Review of research lines and recent advances.
- Strengthening the collaboration between research groups and industry of the *Comunitat Valenciana*.

PROGRAM

Morning

9:00 Registration and welcome

Chairman: Genaro Saavedra

9:30 Optical fiber light sources
Dr. Antonio Díez
ICMUV, Universidad de Valencia, Spain.

10:05 3D microscopy based on Fourier multiplexing
Dr. Manuel Martínez-Corral
Dpto. de Óptica, Universidad de Valencia, Spain.

10:40 Optomechanical oscillations: chaos transition and transfer
Dr. Silvia Soria
IFAC-CNR Institute of Applied Physics, Italy.

11:15 Coffee break

Chairman: Pedro Andrés

11:45 Novel photonic techniques for ultrafast and multidimensional metrology based on frecuency combs
Dr. Vicente Durán
INIT, Universitat Jaume I, Castellón, Spain.

12:20 Exponentially growing self-phase modulation in graphene-cladded on-chip waveguides
Dr. David Castelló-Lurbe
B-PHOT, Vrije Universiteit Brussel, Belgium.

12:55 Photosensitive materials for optical applications
Dr. Cristian Neipp
Universidad de Alicante, Spain.

13:30 Lunch

Afternoon

Chairman: José Luis Cruz

15:30 The aperiodic order in diffractive optics
Dr. Vicente Ferrando Martín
Universidad Politécnica de Valencia, Spain.

16:05 Development of Ultrashort Pulsed Fiber Lasers for the New Industry
Dr. Pere Pérez-Millán
Fyla Laser S.L., Valencia, Spain.

16:40 PS&A, a Valencian start-up that develops 3D micro-cameras
M. Sc. Leticia Carrión-Higueras
Photonics Sensors and Algorithms, Valencia, Spain.

17:15 Polymer Optical Fiber devices: Latest advances and prospects for applications
Dr. Beatriz Ortega
i-TEAM, Universidad Politécnica de Valencia, Spain.

17:50 Closing remarks

REGISTRATION: Please, send an e-mail to Amparo Pons (amparo.pons-marti@uv.es). Deadline: 15th October 2018