



VNIVERSITAT
ID VALÈNCIA

Workshop Optical Fibers and Signal Processing

FOPS 2018 is a joint workshop with groups PROMETEO/2016/079 and PROMETEOII/2015/015. Valencia, Friday 19th October 2018.

Venue: Sal3n de Grados Lise Meitner, Facultat de F3sica, Campus de Burjassot, Valencia.

SPONSORS



PROMETEO 2016/079
GENERALITAT VALÈNCIANA



DIGITAL LIGHT



PROMETEOII 2015/015

Organizer

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Manuel Mart3nez
Jes3s Lancis
Augusto Bel3ndez
Jos3 Luis Cruz



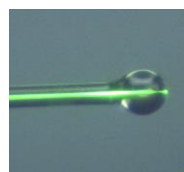
INTRODUCTION

The research group *Fibras 3pticas y Procesado de Se3al* (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.

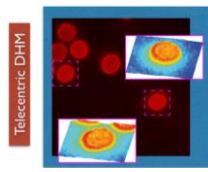
The members of **FOPS group** belong either to the **Institute of Material Science** or to the **Department of Optics** and are organized in three research units: the *Laboratory of Fiber Optics*, the *Modelling and Design of Photonic Components Unit*, and the *3D Imaging and Display Laboratory*.

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 D3ez
ICMUV, Universidad de Valencia, Spain.

10:05 3D microscopy based on Fourier multiplexing

Dr. Manuel Mart3nez-Corral
Dpto. de 3ptica, 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 Andr3s

11:45 Digital control of light beams

Dr. Jes3s Lancis
INIT, Universitat Jaume I, Castell3n, Spain.

12:20 Exponentially growing self-phase modulation in graphene-cladded on-chip waveguides

Dr. David Castell3-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: Jos3 Luis Cruz

15:30 The aperiodic order in diffractive optics

Dr. Vicente Ferrando Mart3n
Universidad Polit3cnica de Valencia, Spain.

16:05 Development of Ultrashort Pulsed Fiber Lasers for the New Industry

Dr. Pere P3rez-Mill3n
Fyla Laser S.L., Valencia, Spain.

16:40 PS&A, a Valencian start-up that develops 3D micro-cameras

M. Sc. Leticia Carri3n-Higuera
Photonics Sensors and Algorithms, Valencia, Spain.

17:15 Polymer Optical Fiber devices: Latest advances and prospects for applications

Dr. Beatriz Ortega
i-TEAM, Universidad Polit3cnica de Valencia, Spain.

17:50 Closing remarks