Postgraduate student: **Myrto Dassi**

Thesis Title:

Detection and Correction of the Elemental Image Grid in Light Field Microscopy

Abstract:

Light Field Microscopy (LFM) captures a biological sample in such a way that it is possible a a-posteriori modification of the sample image parallax, or the focal length. The LFM image consists of a two dimensional image sequence called Elemental Image (EI) sequence. The borders of the EIs generate a grid on the LFM image, which should be automatically detected to allow the EI segmentation and the application of compression or other process algorithm. In this presentation algorithms designed and implemented with MATLAB that achieve accurate and automatic segmentation of the LFM as well as the correction of any existing small deformation created during the LFM image capturing procedure, will be described.

Examining Committee

Phd. Emmanuel Sagriotis, Assoc. Professor, National and Kapodistrian University of Athens

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