

# INSTITUT D'ETUDES SCIENTIFIQUES DE CARGESE

## Cargèse International School 2019

## Functional Ultrasound Imaging of the Brain

October 28 – November 01, 2019

Web site

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ESPCI, Paris PSL

Physmed-workshop@espci.fr



charles river



European Research Council  
Established by the European Commission

Biomechanics involves the study of the interactions of physical forces with biological systems. The emerging concept of mechanobiology focuses on the way that cells produce and respond to mechanical forces – bridging the science of mechanics with the disciplines of genetics and molecular biology. The theme of this conference is the linking of disparate spatial and temporal scales using experimentation, computing and visualization for the purpose of investigating some of the most intriguing problems underlying these two disciplines. Discussions will relate to state-of-the-art research in computational sciences, experimental procedures and visualization approaches that investigate phenomena in Biomechanics and Mechanobiology through a multiscale perspective or provide efficient, coarse-grained description at the same scale. Emphasis will be placed on novel techniques in computing, experimentation and visualization, multidisciplinary research approaches that demonstrate successful synergies as well as experimental and visualization techniques that motivate and support the computational models.

### Eminent scientists in the field will animate the workshop. These include:

*Richard Andersen (CalTech US), Jean-François Aubry (ESPCI Paris FR), Olivier Baud (Univ. Genève CH), Antoine Bergel (ESPCI Paris FR), Yves Boubenec (ENS Paris FR), Serge Charpak (Univ. Paris-Descartes Paris FR), Charlie Demene (ESPCI Paris FR), Alexandre Dizeux (ESPCI Paris FR), Gillian Grohs (Boehringer Ingelheim DE), Jorgen A. Jensen (Technical Univ. DK), Zsolt Lenkei (Inst. Spychiatrie et Neurosciences Paris FR), Georg Maret (Univ. Konstanz DE), Bruno-Félix Osmanski (ICONEUS FR), Fabienne Perren (Hopital Univ. de Genève CH), Sophie Pezet (ESPCI Paris FR), Pierre Pouget (Hop Salpêtrière Paris FR), Mikhail Shapiro (CalTech US), Artem Shatillo (Charles River Lab. Wilmington US), Mickael Tanter (ESPCI Paris FR), Denis Vivien (Cyceron Caen FR)*

### Scientific Committee

Olivier Baud (Univ. Genève CH), Thomas Deffieux (ESPCI Paris FR), Zsolt Lenkei (Inst. Spychiatrie et Neurosciences Paris FR), Mikhail Shapiro (CalTech US)

### Organization Committee

Thu-Mai Nguyen, Mickael Tanter (ESPCI Paris FR)

### Application and registration

<https://www.physicsformedicine.espci.fr/fusbrain2019#1557217501605-953a665b-89d7>

Contact : physmed-workshop@espci.fr

Deadline Application : 2019, June 23rd

Registration Fees : 350€ to 500€