

## **2014 Young Researcher Award in Optical Technologies**

In 2014, for the seventh time, the Erlangen Graduate School in Advanced Optical Technologies (SAOT) will present the Young Researcher Award in Optical Technologies (YRA) to a young scientist with an excellent proven record in optics and optical technologies.

The 2014 designated laureate is Professor Edouard Berrocal from the Division of Combustion Physics of the Lund University, Sweden. During the award celebration ceremony on July 10<sup>th</sup>, 2014, the award will be conferred on him in recognition of his outstanding contributions related to "Optical Diagnostics for Spray Research". Sprays are applied in diverse areas of daily life, such as in internal combustion engines of passenger cars, jet engines of planes, deodorants/perfumes, inhalers, water sprinkling devices, painting, high pressure water jet cleaning devices and many more. Furthermore sprays can be found in many industrial processes, such as in turbines, spray cooling processes, lubrication processes, particles-from-spray processes, cutting and cleaning processes and many more.

Areas of research Edouard Berrocal is active in are:

- Development of structured spray illumination techniques for the detection of the liquid-phase distribution and the droplet size in sprays
- Spray analysis for the provision of experimental data to spray modelers
- Transfer of structured illumination techniques to Life Sciences.

Fortunately the expertise of Professor Berrocal fits well to establish a fruitful collaboration between SAOT researchers and him, especially in the fields of optical spray research in combustion and particle engineering.

As award winner he will have the formal status of a guest professor during his visits at the SAOT when he spends the prize money of 100,000 Euros in close collaborations with several SAOT scientists. For the next few years he will set up a small working group in Erlangen to pursue optical investigations in his area of expertise.

The award underlines SAOT's objective to improve interdisciplinary research and education in development and application of optics and optical technologies, particularly at the interfaces between natural sciences, engineering and medicine in the six SAOT research areas: optical metrology, optical material processing, optics in medicine, optical material and systems, optics in communication and information technologies and computational optics. The Young Researcher Award in Optical Technologies strengthens the international networking of distinguished experts and provides a platform for the interdisciplinary exchange of innovative scientific ideas.

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