



# **Conference chairs:**

#### Ion N. Mihailescu

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# Plenary lecture:

**Stefan W. HELL** – Nobel prize for Chemistry in 2014

### **TOPICS**

- Theoretical approach, simulation and modeling of photoexcited processes
- Fundamental phenomena of laser-matter interactions
- Dynamics and diagnostics of photoexcited processes
- Ultrafast Phenomena in chemical processes
- Photoexcited chemical processes
- Photo/laser-induced desorption from surfaces
- Resonant and non-resonant processes in photo/laser-induced materials processing
- Deposition and coating of thin films, multilayers, and nanostructured materials
- Synthesis of nanomaterials
- Photo/laser-induced nanoscale processing

- Plasmon-enhanced photon/laser processing
- Cutting, drilling, surface patterning and micromachining
- Surface modification including crystallization, amorphization, phase transformation, and doping
- Surface nanostructuring and nanoripple formation
- Volume and 3D internal processing
- 3D additive manufacturing
- Manipulated/shaped beam processing
- Ultrahigh-power laser applications
- Interactions with organic and biomaterials and applications including MALDI and laser microprobe mass analysis
- Lasers in nanobiomedicine
- Photon sources and laser systems for photo- excited processes
- Photocatalysis

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ICPEPA-10 Abstract Deadline: May 9, 2016