

# NILindustrialday 2014

## Workshop 1

### Large Area Stamps

Thursday March 13

15:45 – 17:15, Ursulinensaal

Presenter	Organisation	Title
Michael Mühlberger	PROFACTOR	Workshop introduction
Felix Holzner	Swisslitho	Thermal Probe Nanolithography for the fabrication of 3D templates
Jan Stensborg	Stensborg A/S	
Ernst-Bernhard Kley	FSU Jena	Electron beam lithography for large area stamps
Izumi Kamijo	Soken	Production of Large Size Nano imprinting Mold Applying The Tiling Method
Thomas Ruhl	Temicon	Large Area molds for functional surfaces



## **Short Abstracts:**

### **Michael Mühlberger**

The nanoimprint area has increased steadily over time and especially with roller-based NIL the necessity for large area masters and stamps has dramatically increased? What are the possibilities, solutions and bottlenecks?

### **Felix Holzner, Swisslitho**

Thermal Probe Nanolithography is capable to directly write 3D nanostructures with unmatched precision. The patterning speed has been increased far beyond common scanning probe lithography technologies. By now, it is comparable to high-resolution e-beam lithography, but with reduced turnaround times due to the direct-write process and on-the-fly inspection of the nanostructures. The written nanostructures can be transferred into various materials by means of RIE or other methods. Hence, for the first time, the fabrication of stamps for NIL becomes feasible with a relatively simple alternative patterning technology and with unmatched precision in 3D.