

Vad händer inom **optiken** i Stockholm?

Torsdagen den 26 februari 17.30 – 18.30

**KTH-Kista, Isafjordsgatan 22, Electrum
Plan 2, Sal 204 (mittemot restaurang PUUR)**

**“Industrial Inkjet printing”,
Dr. Werner Zapka, XAAR inc.**

Abstract: Inkjet printing technology is strongly expanding into industrial manufacturing, where precise amounts of material have to be applied at precisely controlled locations. Main advantages of inkjet printing are it being non-contact, so that printing is possible on sensitive and/or contoured substrates, and it being digital, so that no time/cost-consuming physical masking systems are needed. On the other hand, however, inkjet technology is highly complex, both due to the complicated processes leading to drop ejection, and due to its strong inter-dependencies with the specific inks and substrates, and further due to its need for certain pre-and post-processes. Reliable inkjet printing, as is mandatory for industrial manufacturing, requires good matching of the printhead and the ink. To enable such matching we use several specific metrology techniques to e.g. measure the complex rheology of the inks, monitor and optimize the drop formation process at the nozzle, and quantitatively detect missing drops etc. With a well-adapted system it is possible e.g. to produce coatings with thickness controlled to single nano-meter, to print electrically conducting track pattern, to use inkjet technology in combination with other techniques, and thus creating hybrid machines with unique performance. Examples will be discussed.

**“Ground and satellite based applications of mid-infrared optical
parametric oscillators”, Nicky Thilmann, Laser physics department, KTH**

Abstract: Optical parametric oscillators (OPOs) can extend the capabilities of available laser sources to a wider wavelength range. In this talk I will present our work on employing OPOs as light sources in the mid-infrared spectral region and give insight into two future applications of such systems. First, a source suitable for minimally invasive surgery is presented and, second, our ongoing research to develop a satellite based OPO to monitor greenhouse gasses in the atmosphere will be shown.

följt av

OPTOPUB 18.30 –20.00

för alla som vill prata optik och fotonik eller annat

**ADOPT, Linné center i Modern Optik och Fotonik,
bjuder alla som föranmält sig på mat och dryck.**

**Viktigt: Föranmälan via doodle.com/5gxxkucyrzugkcf5z för mat!!!
Senast Onsdag 25:e februari före kl.10:00 !!!**

Välkomna!

**Lennart BM Svensson,
Gunnar Björk,**

**Sergei Popov,
Jens A Tellefsen, Jr**

Saulius Marcinkevicius,

Optopubarna samarrangeras av