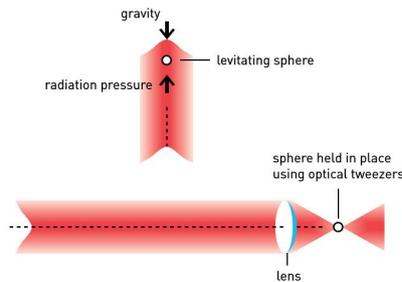
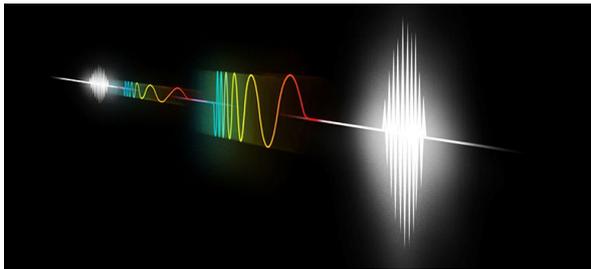


What happens in **optics** in Stockholm?

Thursday 25th October 17.30 – 18.30

KTH-AlbaNova University Center, Roslagstullsbacken 21

Lecture Room FA31, Level: 3 (2-floors down from entrance at Level: 5)



Lasers have done it again! Nobel Prize in physics 2018

Presentation by Prof. Valdas Pasiskevicius, Department of Applied Physics, KTH

The inventions being honoured this year 2018 have revolutionized laser physics. Extremely small objects and incredibly rapid processes are now being seen in a new light. Advanced precision instruments are opening up unexplored areas of research and a multitude of industrial and medical applications.

Arthur Ashkin invented optical tweezers that grab particles, atoms, viruses and other living cells with their laser beam fingers. This new tool allowed Ashkin to realise an old dream of science fiction – using the radiation pressure of light to move physical objects. He succeeded in getting laser light to push small particles towards the centre of the beam and to hold them there. Optical tweezers had been invented.

G rard Mourou and **Donna Strickland** paved the way towards the shortest and most intense laser pulses ever created by mankind. Their revolutionary article was published in 1985 and was the foundation of Strickland's doctoral thesis.

Using an ingenious approach, they succeeded in creating ultrashort high-intensity laser pulses without destroying the amplifying material. First they stretched the laser pulses in time to reduce their peak power, then amplified them, and finally compressed them. If a pulse is compressed in time and becomes shorter, then more light is packed together in the same tiny space – the intensity of the pulse increases dramatically.

followed by Optopub 18:30-20:30, ADOPT, Linn  center i Modern Optik och Fotonik, invites everyone who pre-registered for food and drinks.

Please, register here: <https://doodle.com/poll/8rbw84c2ysbz65yr>

No later than Tuesday 23th October before kl.16:00 !

Welcome!

Lennart BM Svensson, Jens A Tellefsen, Jr, Gunnar Bj rk

Optopubs are co-arranged with

