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talks on:

Optical metamaterials: technology of the future
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Metamaterials are artificially designed and engineered materials that have properties going beyond of those available in nature. They promise to bring optical technologies to the next level and enable unparalleled applications, ranging from ultrathin optics with superb resolution to optical cloaking and ultrafast nanophotonics.

Modern trends in Nanophotonics
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With photons one packages information into a signal of zero mass and propagates it at the ultimate speed, namely the speed of light. The challenge here is to develop nanostructured metamaterials that can control and manipulate light on the nanoscale and enable the needed complex functionality, similar to that in current electronics but at much higher speeds. Going quantum opens up yet other exciting opportunities that take advantage of the unique quantum properties of light and matter.