

Superresolution by image scanning microscopy and image inversion interferometry

Monday 23 July 2018 16:00 (30 minutes)

In the past decade revolutionary advances have been made in the field of microscopy imaging, some of which have been honoured by the Nobel prize in Chemistry 2014.

Yet some methods are less well known, which will be the topic of this talk. Image scanning microscopy is a linear super-resolution method, which made it to the commercial market. However, image inversion interferometry as realized by the UZ-interferometer (UZI) is relatively unknown and the superresolution aspect is based on an interesting interferometric effect in which the light, in a sense, creates its own pinhole with the advantage of not losing any photons on the detection side. This talk will also present a quantitative signal-to-noise comparison of various linear superresolution methods.

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