FACOLTÀ DI SCIENZE MATEMATICHE, FISICHE E NATURALI
DIPARTIMENTO DI MATEMATICA E FISICA "NICCOLÒ TARTAGLIA"
INTERNATIONAL DOCTORAL PROGRAM IN SCIENCE

Super-resolution imaging by dielectric particle-lens

Introduce:
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Abstract

Recently, imaging by microspheres and dielectric particle-lenses emerged as a simple solution to obtaining super-resolution images of nanoscale devices and structures.
Calibrated resolution of ~λ/6 - λ/8 has been demonstrated, making it possible to directly visualize 15-50 nm scale objects under a white light illumination.
The technique has undergone rapid developments in recent years, and major advances such as the development of surface scanning functionalities, higher resolution metamaterial superlens, biological superlens and integrated bio-chips as well as new applications in interferometry, endoscopy and others, have been reported. This talk aims to provide an overall review of the technique including its background, fundamentals and key progresses.
The outlook of the technique is finally discussed.

Seminario

Venerdì 17 maggio 2019
Sala Riunioni, ore 12.00
Via dei Musei 41 - Brescia

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