

## **Novelties in COMSOL for Modeling Optical Nanostructures**

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The talk addresses recent advances of COMSOL Multiphysics in modeling nano-optical and plasmonic structures, in particular: new algorithms, e.g. discontinuous Galerkin, and gradient-free shape optimization, new meshing procedures, boundary conditions, but also interfaces ranging from cloud computing to office desktop programs. This unique combination along with COMSOL's particular strength of coupling various physical effects in one user interface provides new powerful tools for modeling EM wave propagation in the nanoscale.