



Theory of chiral light-matter interaction

Thomas Weiss

Institute of Physics, University of Graz, Austria

Abstract

The lecture comprises an introduction to chirality as a geometrical concept, chiral light-matter interaction, and nanophotonic chiral sensing. We will first discuss about how to quantify chirality. Then, we will derive basic properties of chiral molecules and unite them with chiral properties of light. Finally, a perturbation theory will be shown, which gives an insightful and intuitive idea on how to enhance chiral light-matter interaction for nanophotonic sensing.