

**Graz Advanced School of Science**  
PHYSICS COLLOQUIUM OF THE UNIVERSITY OF GRAZ AND  
THE GRAZ UNIVERSITY OF TECHNOLOGY

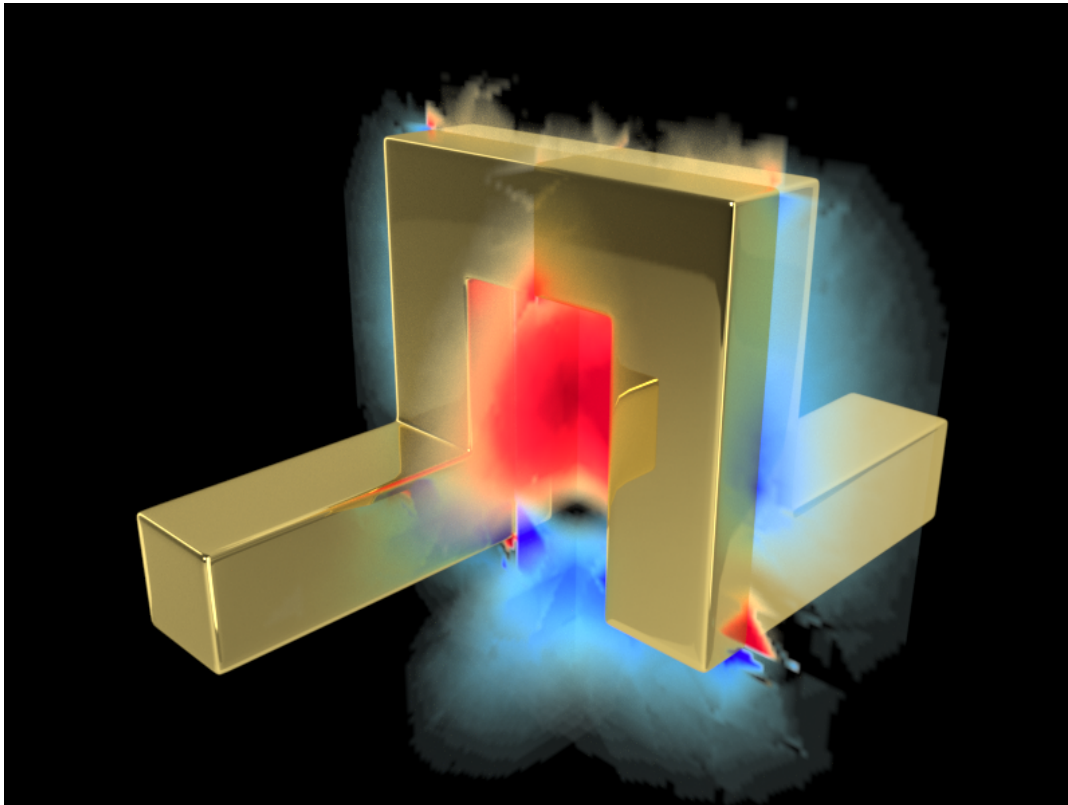
*Thomas Weiss*

University of Graz

## **Resonant states and their role in nanophotonics**

Resonant phenomena have been extensively used in micro- and nanophotonics. These phenomena originate in a discrete set of basis functions known as resonant states or quasi-normal modes that are eigensolutions of Maxwell's equations. I will introduce the fundamental principles and challenges of describing light-matter interaction in terms of these resonant states. Such a representation is very intuitive and provides deep insight about the underlying physical mechanisms. I will demonstrate this for various applications in fields such as chiral and nonreciprocal nanophotonics.

Hybrid event: join in person (lecture hall HS05.01) or on-line:  
[Stream](#) and [chat for asking questions](#).



**Date:** Tuesday, 15 March 16:15  
**Location:** Lecture Hall 05.01, Institute of Physics, University of Graz, Universitätsplatz 5  
**Host:** Ulrich Hohenester, Peter Banzer, KFU