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

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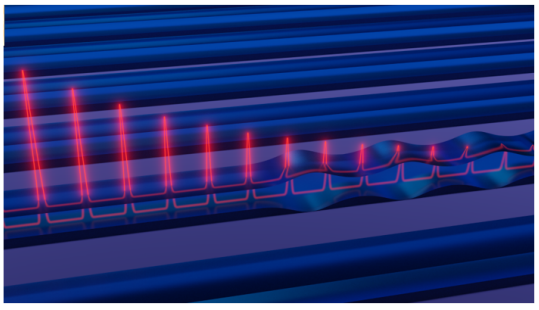
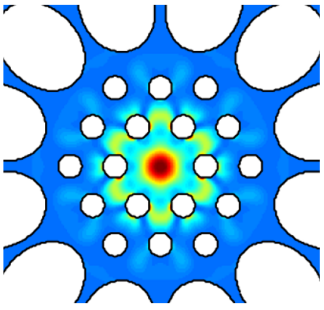
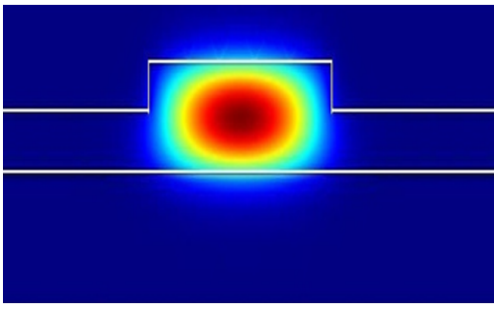
Coherent light-sound interactions in waveguide structures

Despite their different nature, optical waves and acoustic vibrations can couple efficiently through the effects of electrostriction, photo-elastic effect and radiation pressure. These phenomena enable the creation and annihilation of sound waves and have a wide range of application from passive mode-locking, narrow-linewidth lasers, agile radiofrequency filters, distributed sensing to versatile signal processing. The latter includes calculus operations, signal amplification and storage of light information.
In this talk, I will give an overview on our research projects with a focus on different aspects of light storage via sound waves, manipulation of the limit of the acoustic decay time and optoacoustics in more exotic optical fibers such as CS2-filled capillaries and twisted multi-core photonic crystal fibers.

Follow the link below to join the Zoom live session: Join Session.
Meeting-ID: 837 0308 8651 (no password required)

Date: Tuesday, 9 November 16:15
Location: https://us02web.zoom.us/j/83703088651
Host: Peter Banzer, KFU

For a regularly updated colloquium program see: https://www.if.tugraz.at/colloquium.html