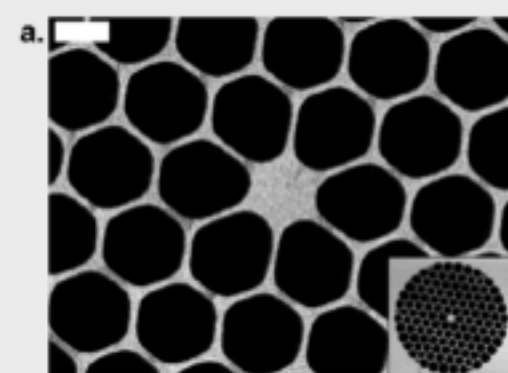


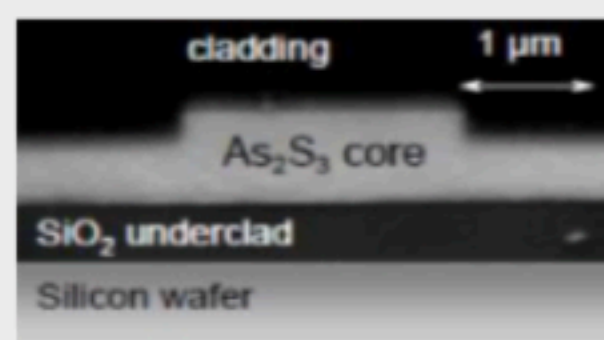


Light and sound interaction

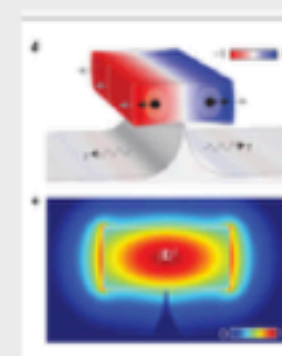
Waveguides



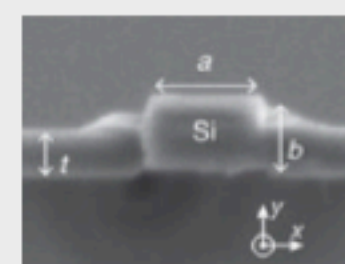
MPL/UNICAMP



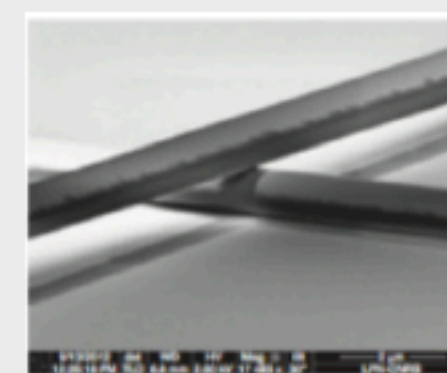
CUDOS



GHENT



YALE



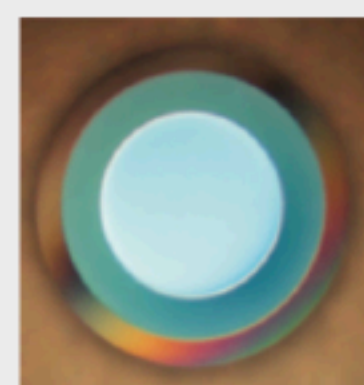
FEMTO-ST

Cavities



5.5 mm

JPL



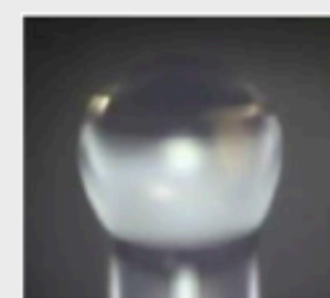
10 mm

CALTECH



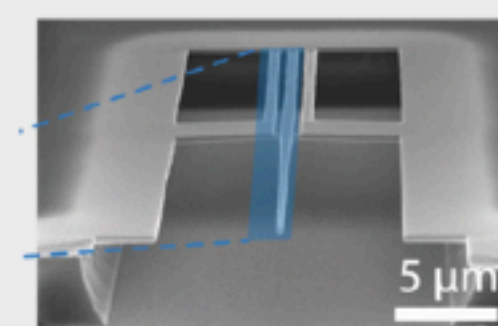
10 mm

FEMTO-ST



100 μm

Michigan/Technion



5 μm

Delft/UNICAMP

- ▶ Gyroscopes
- ▶ Sensors
- ▶ Amplifiers
- ▶ High spectral purity lasers
- ▶ RF signal processing
- ▶ Quantum states
- ▶ Quantum memories

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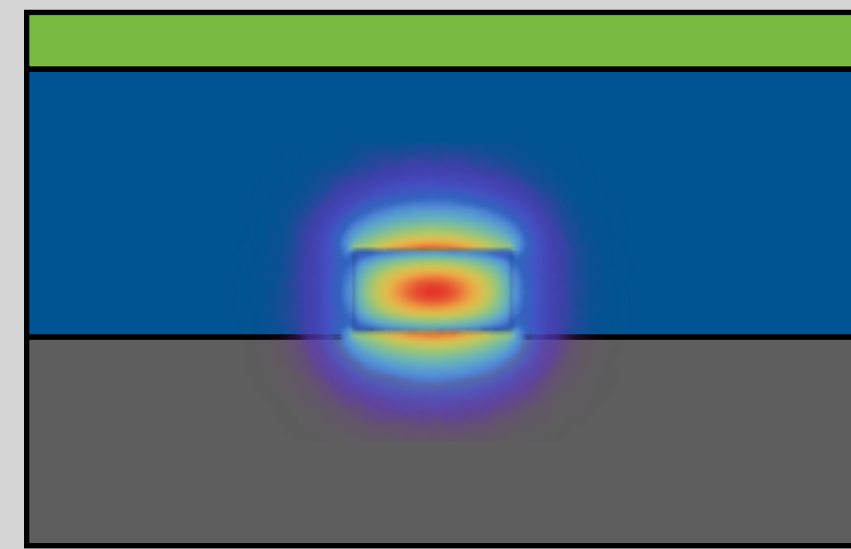
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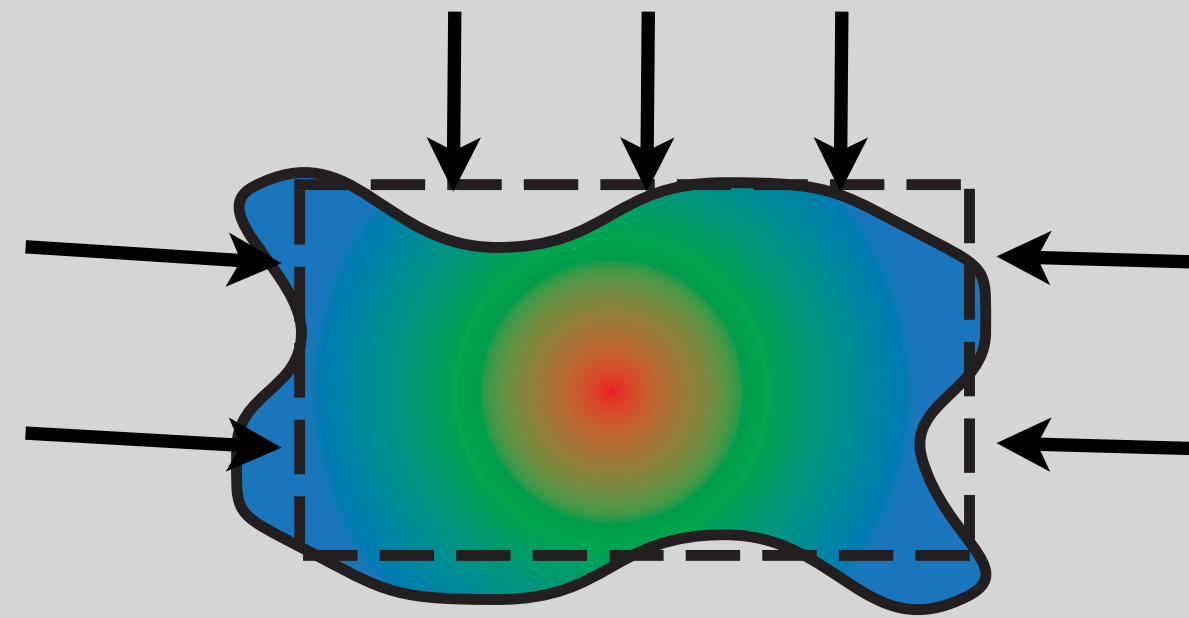


Light-sound interaction

Light perturb
vibrations



Optical intensity
gradient

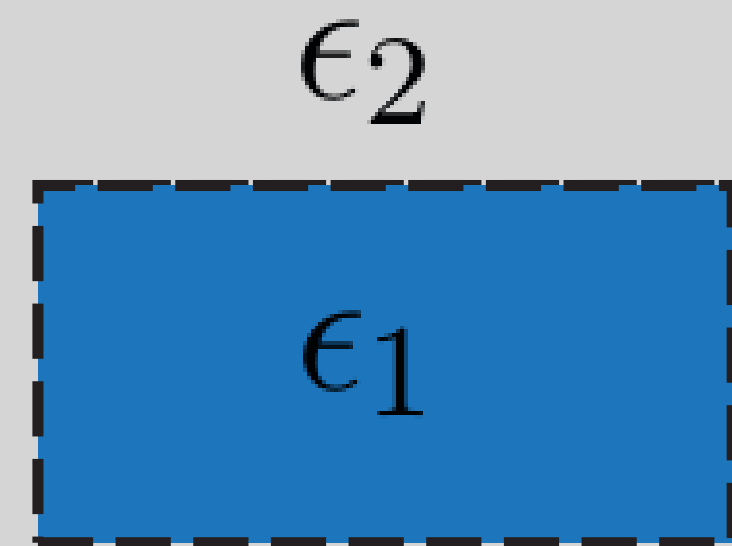


- ☆ boundary pressure
- ☆ body forces

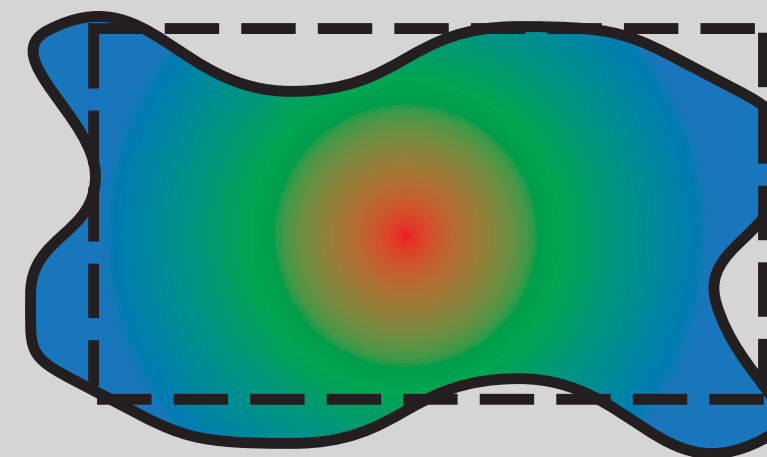


deforms
mechanical
structure

Vibrations
perturb light



Dielectric
waveguide



- ☆ boundary distortion
- ☆ photoelastic effect



refractive index
modulation