



# Outline

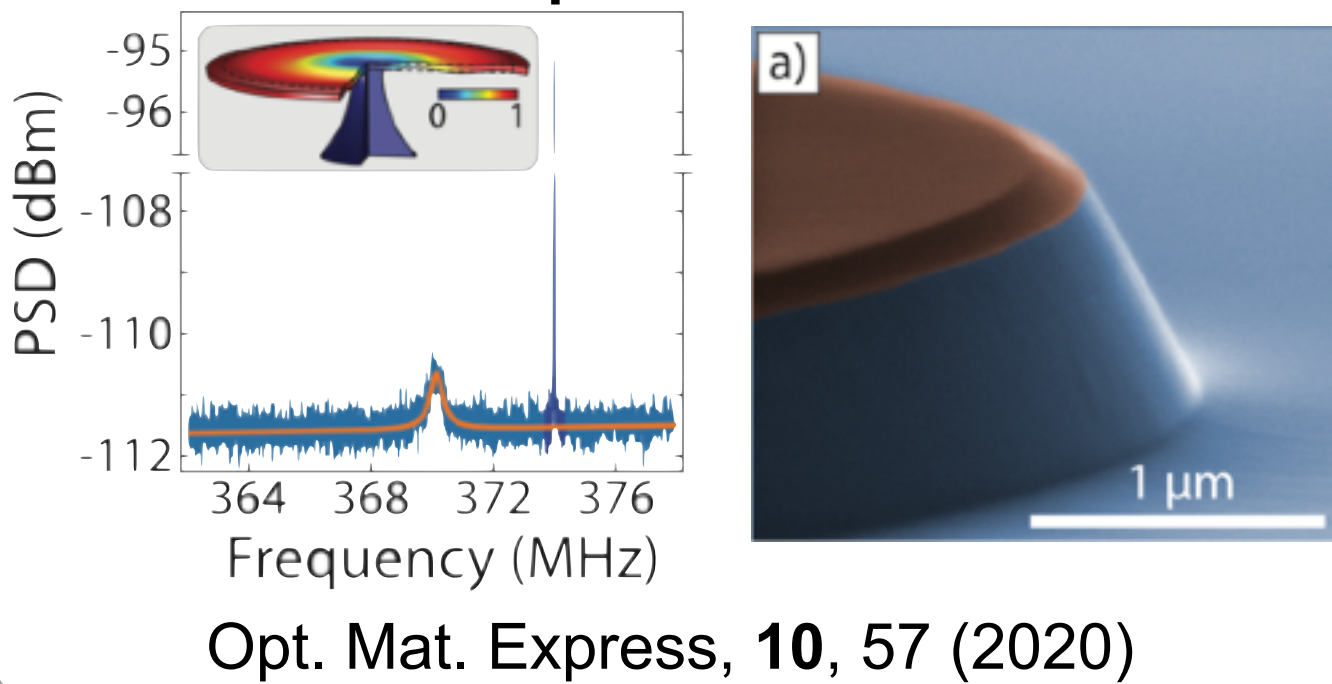
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- Introduction to Brillouin Scattering
- Mechanical modes
- Optical modes
- Harnessing Brillouin interaction
- ➔ • Optomechanical cavities
- Final remarks

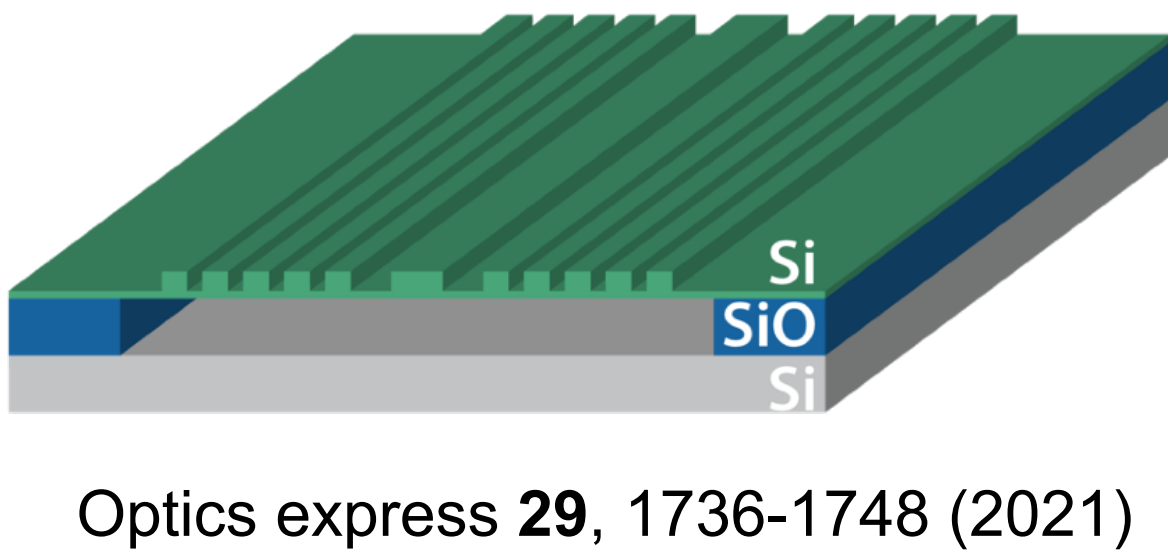
# Optomechanical possibilities



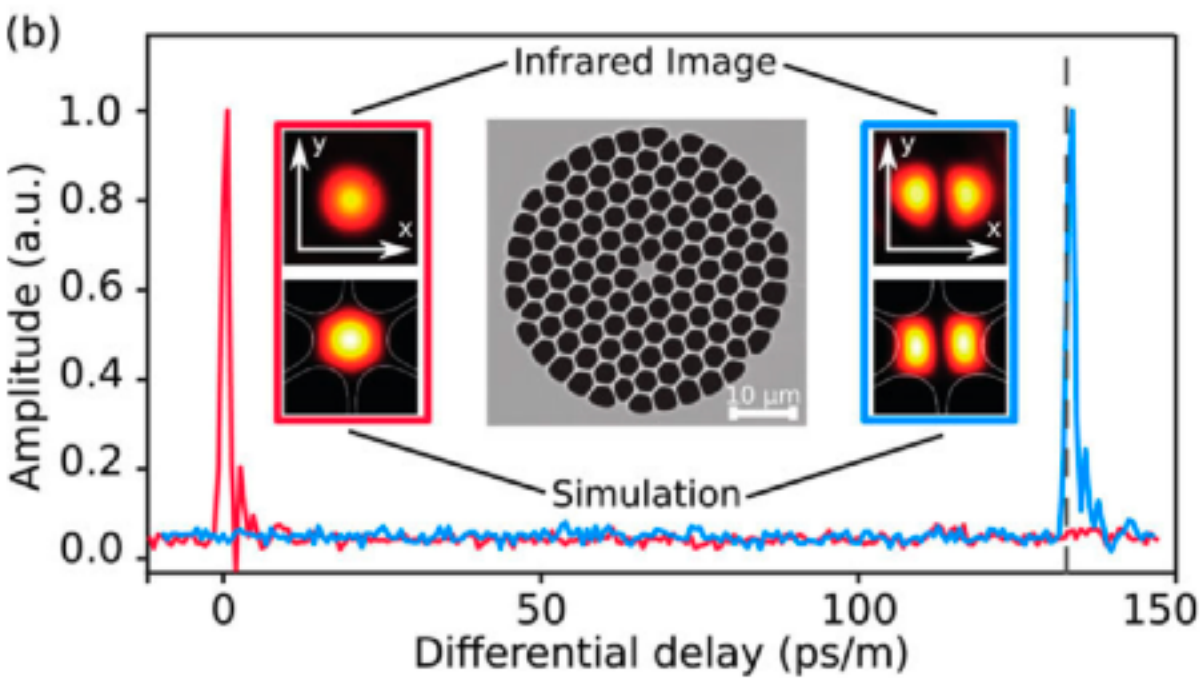
## GaAs Optomechanics



## Strong Confined Brillouin

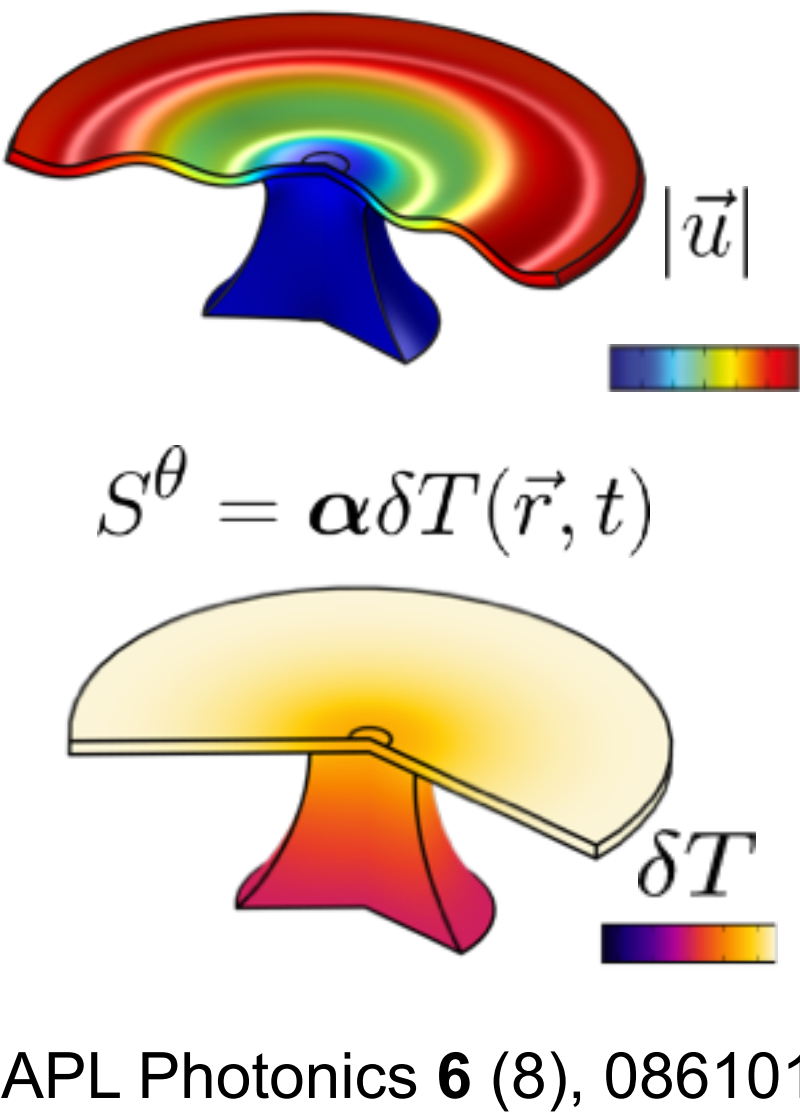


## Optomechanical mode converter

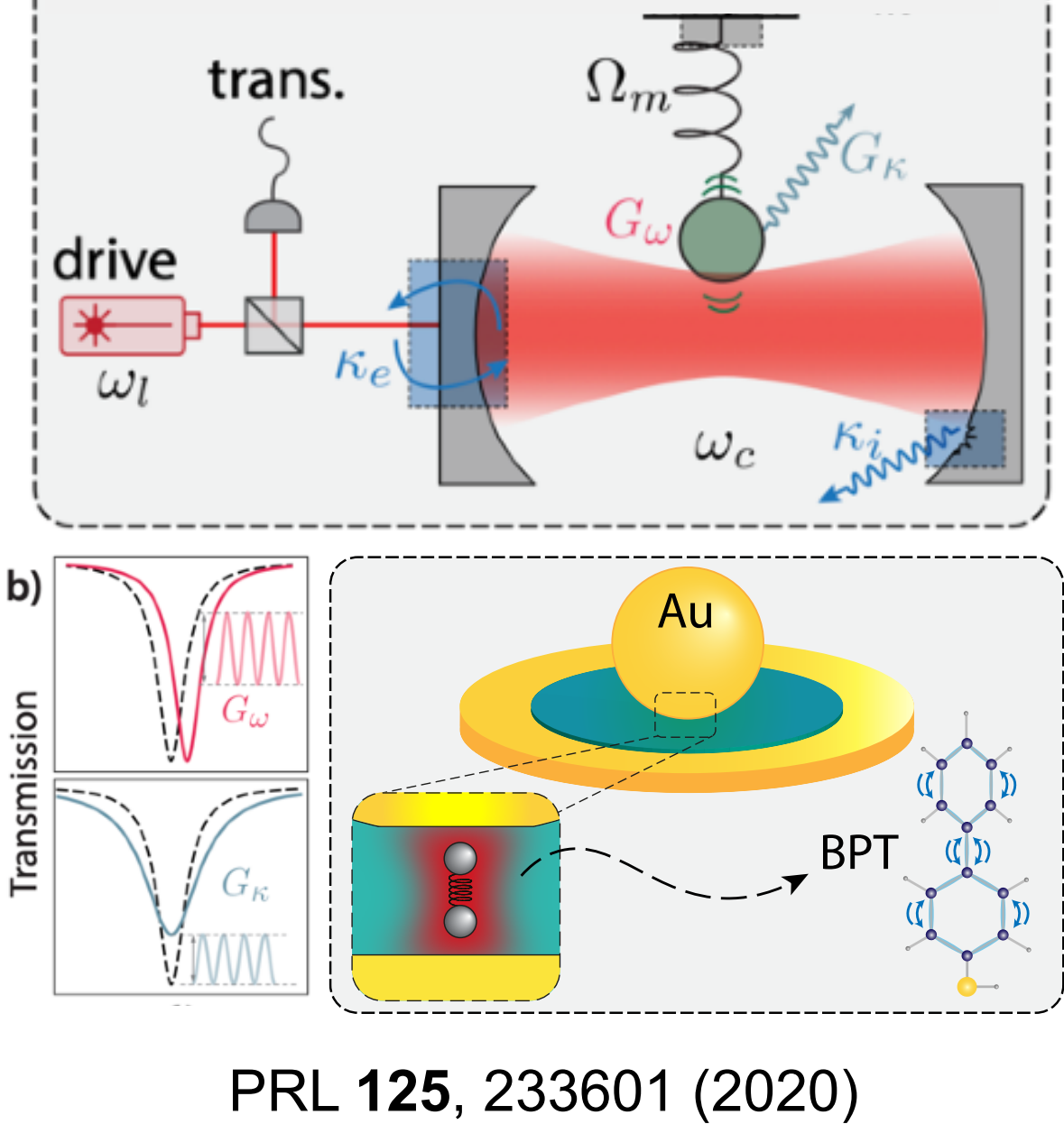


Jarschel et al, APL Photonics 6, 036108 (2021)

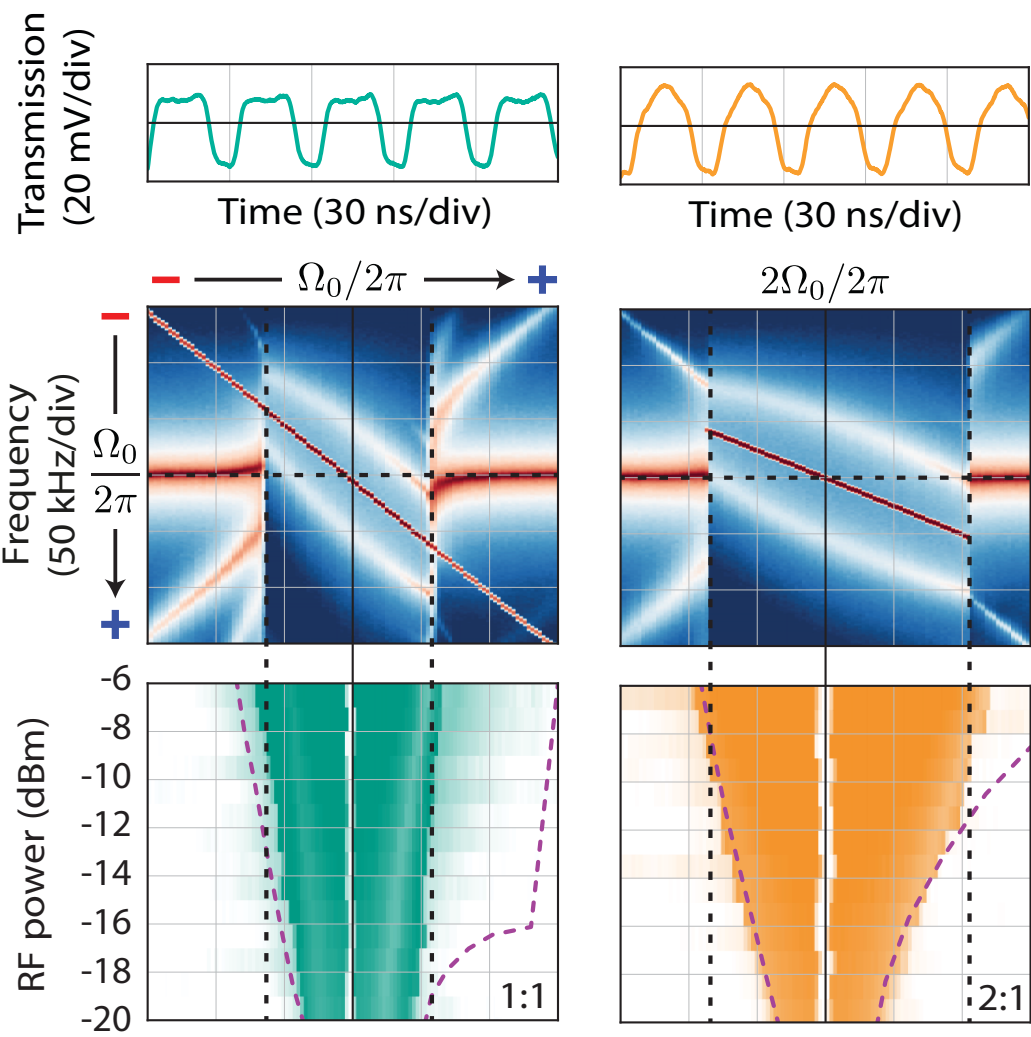
## Photo-Thermal Forces



## Quasinormal-modes



## Optomechanical synchronization



Nat Commun **12**, 5625 (2021).