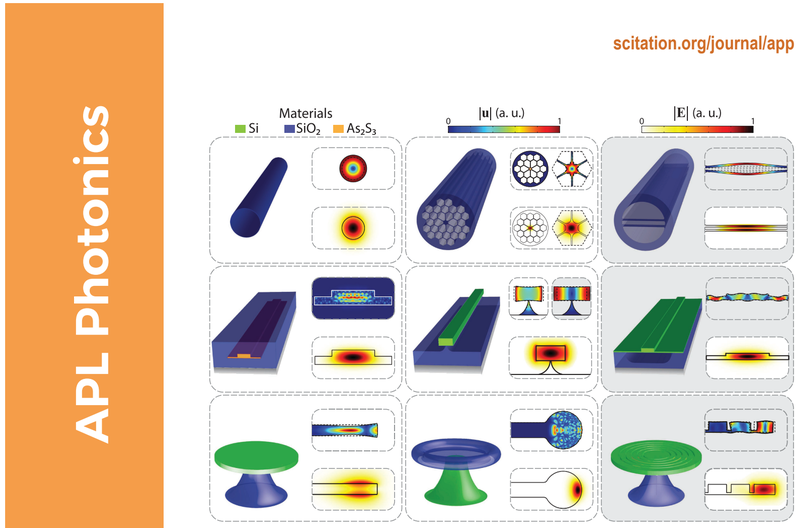
Conclusions & Outlook

- Fundamental and technological challenges
- Bridge radio and optical frequencies
- Nonlinear optical interactions to write and read information (including quantum)
- Interface with molecular vibration
- OM cavities and waveguides based on active materials



APL Photonics **4**, 071101 (2019)

Volume 4, Issue 7, Jul. 2019

Brillouin optomechanics in nanophotonic structures

APL Photon. **4**, 071101 (2019); doi.org/10.1063/1.5088169

Gustavo S. Wiederhecker, Paulo Dainese, and Thiago P. Mayer Alegre

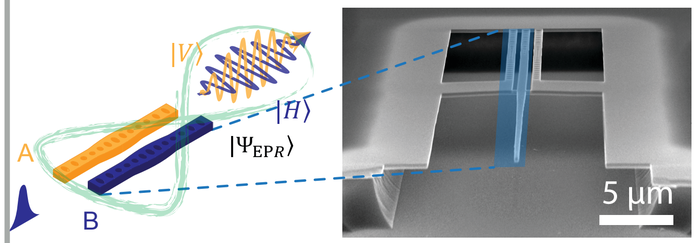
Thiago Alegre

Paulo Dainese

Conclusions & Outlook

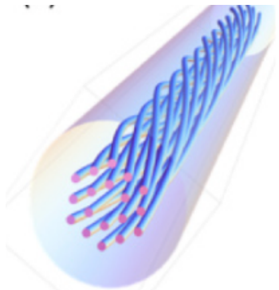
- Fundamental and technological challenges
- Bridge radio and optical frequencies
- Nonlinear optical interactions to write and read information (including quantum)
- Interface with molecular vibration
- OM cavities and waveguides based on active materials

Optomechanical quantum teleportation



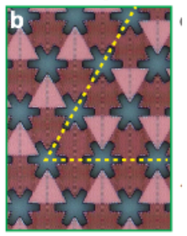
Fiaschi, et al. Nature Photonics 15, 817-821 (2021)

Chiral interaction



Xinglin Zeng, Photon. Res. 10, 711-718 (2022)

Topological transport

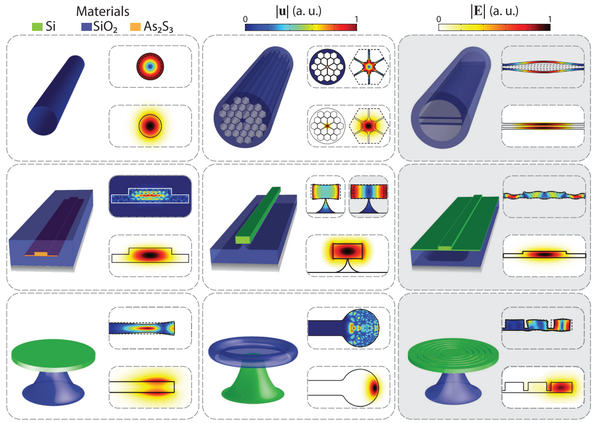


Ren et al, arXiv:2009.06174 (2021)

APL Photonics

AIP Publishing

scitation.org/journal/app



APL Photonics **4**, 071101 (2019)

Volume 4, Issue 7, Jul. 2019

Brillouin optomechanics in nanophotonic structures

APL Photon. **4**, 071101 (2019); doi.org/10.1063/1.5088169

Gustavo S. Wiederhecker, Paulo Dainese, and Thiago P. Mayer Alegre

Thiago Alegre

Paulo Dainese