

Acknowledgements

<https://www.iphd.tec.br>

How it is actually done?

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Photonics North, Niagara Falls, May 26th 2022

Wombat 2022, Erlangen, June 14th 2022. Gustav Wiederhake.





Postdocs, PhD and Master fellowships available!



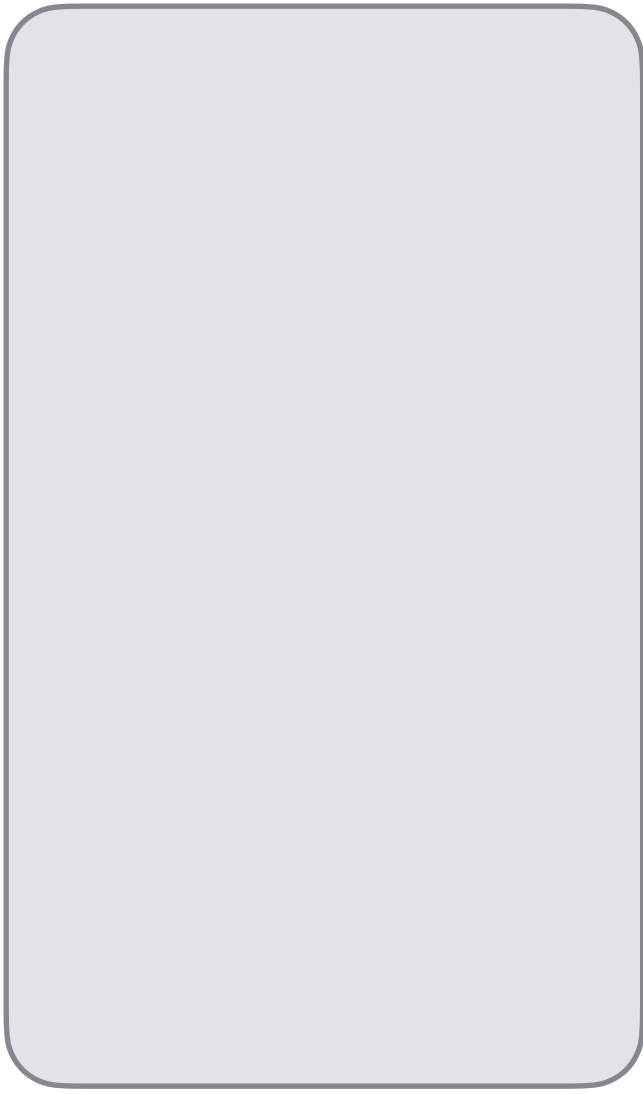


<https://zenodo.org/communities/1pdd-nanophotonics/>

10.5281/zenodo.4414837

10.5281/zenodo.1971811





comsol



materials, domain

Input parameters:

geometry, physical,

selection





Physics of optical

pumpmode(p)



scattered modes (s)

Physics of optical



node

Physics of mechanical



beta_p

Optical wavevector:



beta_s

Optical wavevector:



solver1

Eigennvalue













solver2

Eigenvalue



Phase-matching:

beta_s

$$\text{beta}_m = \text{beta}_p$$











Eigenvalue

solver3



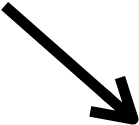




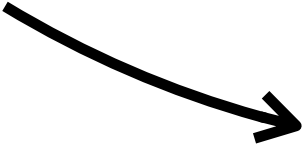


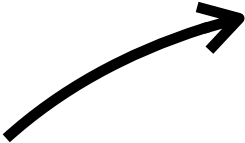
Solid.omega

Mechanical frequency:













optical field (p)



optical field(s)





Mechanics



custom defined variables













integrands, fields, strain, etc.

Post-processing, visualization:

Gain calculation, overlap

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