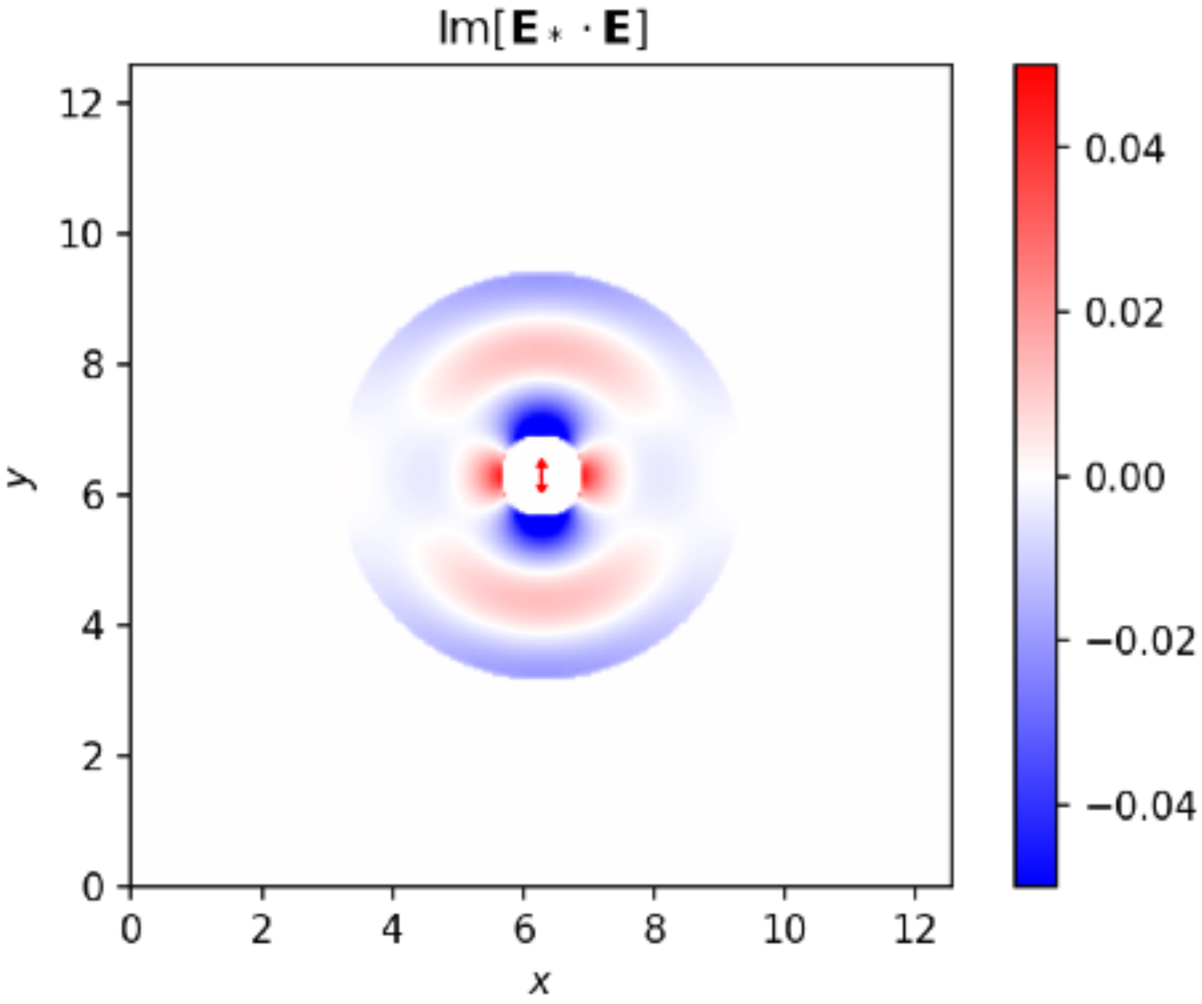
The Adjoint Method

$$P = -\frac{1}{2}\mathrm{Im}\left[\boldsymbol{p}^* \cdot \boldsymbol{E}(\boldsymbol{r}')\right]$$

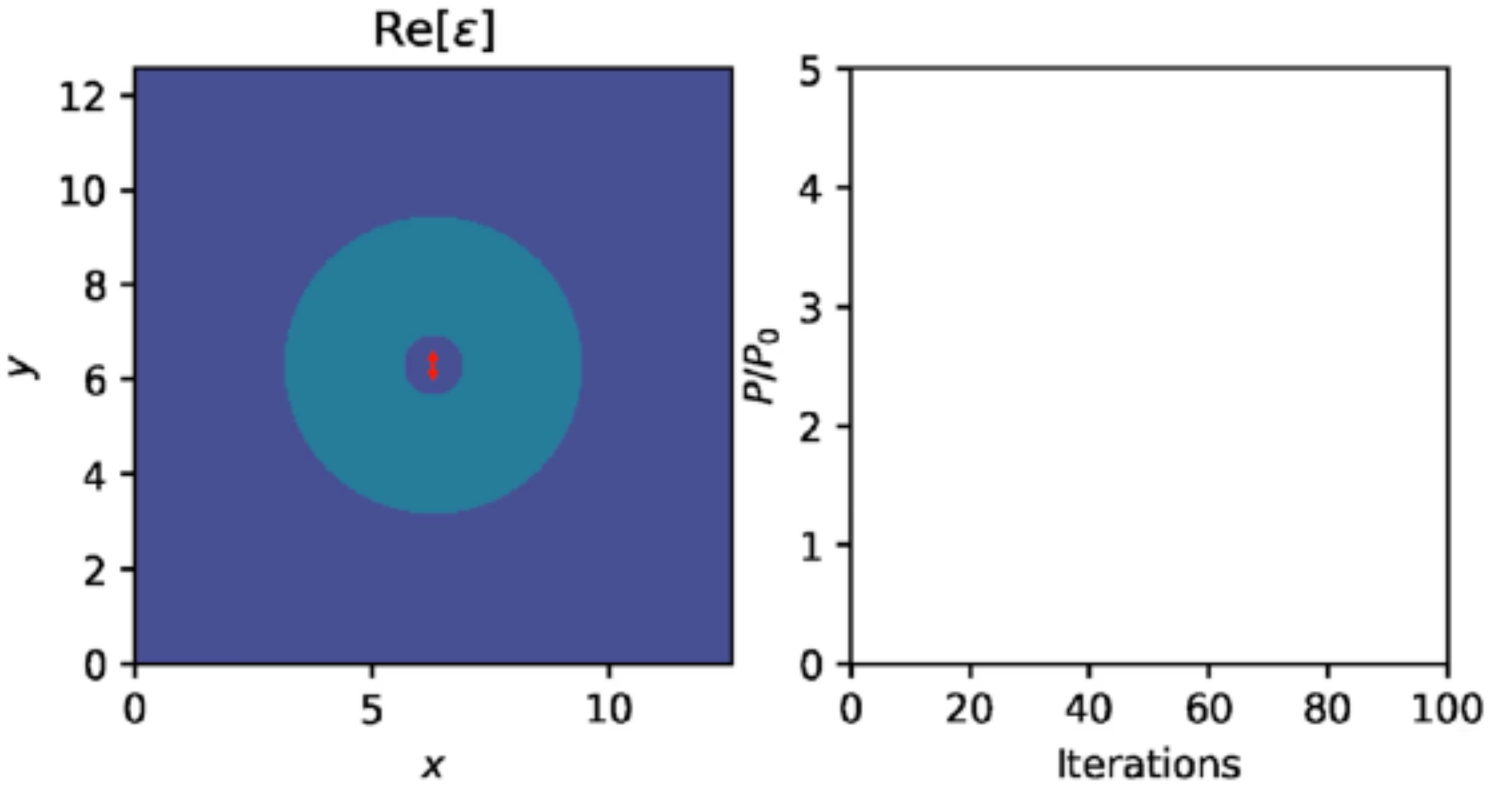
$$\frac{\delta P}{\delta \varepsilon} = \frac{1}{2}\mathrm{Im}\left[\boldsymbol{E}_*(\boldsymbol{r}) \cdot \boldsymbol{E}(\boldsymbol{r})\right]$$



- Sandro Mignuzzi, Stefano Vezzoli, Simon A. R. Horsley, William L. Barnes, Stefan A. Maier, and Riccardo Sapienza “Nanoscale Design of the Local Density of Optical States”, Nano Lett. 19, 3, 1613–1617 (2019)
- Owen Miller, “Photonic Design: From Fundamental Solar Cell Physics to Computational Inverse Design”, PhD thesis (2012)

The Adjoint Method

$$\delta P = \frac{1}{2}\mathrm{Im}\left[\boldsymbol{E}_{*}(\boldsymbol{r})\cdot\boldsymbol{E}(\boldsymbol{r})\right]\delta\varepsilon$$



- Sandro Mignuzzi, Stefano Vezzoli, Simon A. R. Horsley, William L. Barnes, Stefan A. Maier, and Riccardo Sapienza “Nanoscale Design of the Local Density of Optical States”, Nano Lett. 19, 3, 1613–1617 (2019)
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