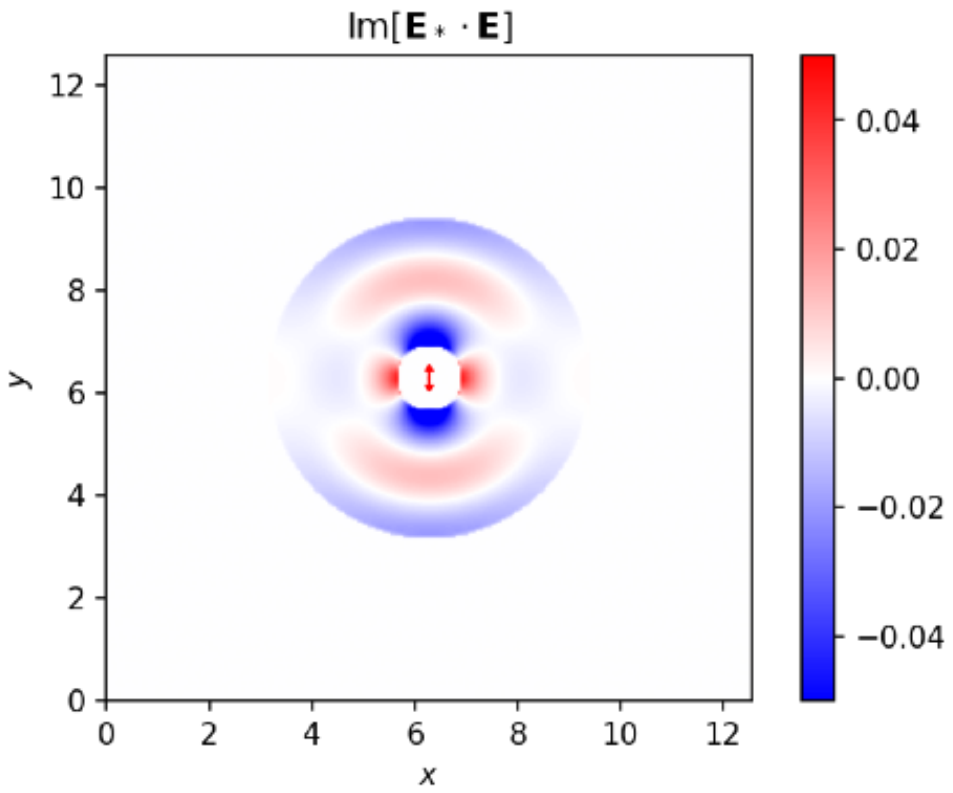
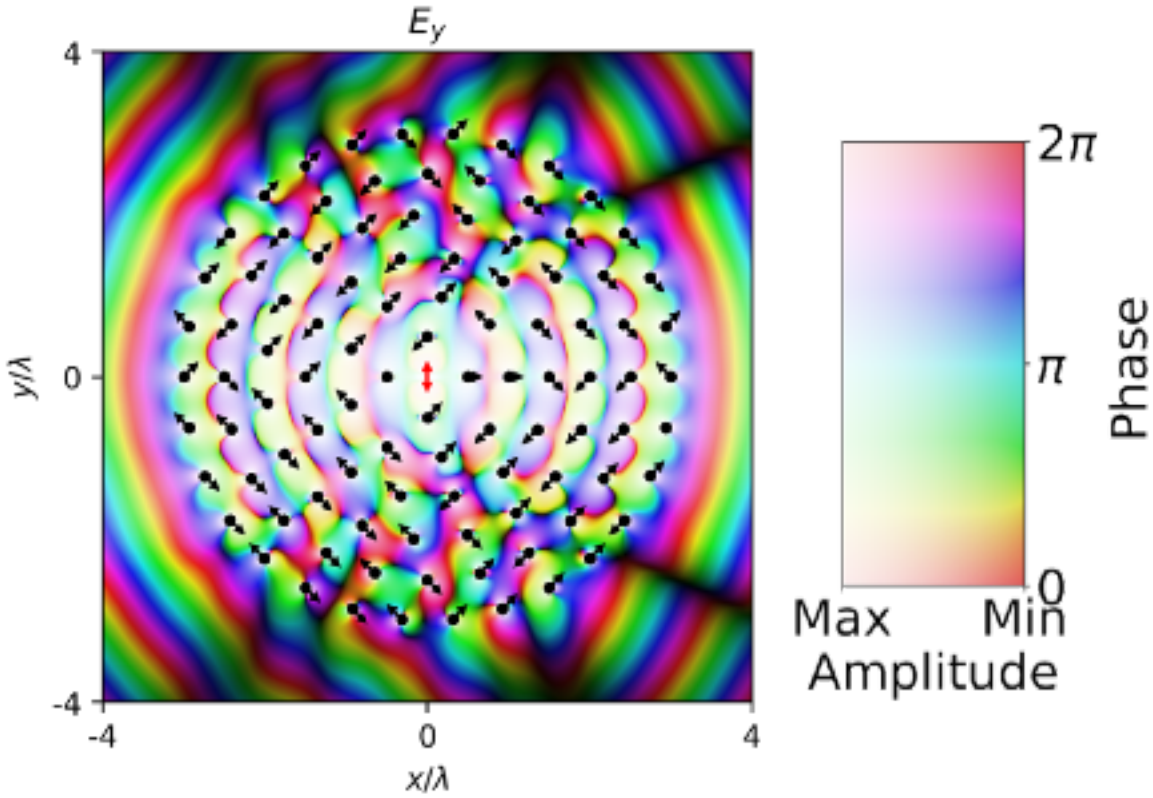
Continuous → Discrete

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

$$\delta P = \mathrm{Im}\left\{\mathbf{p}^* \cdot \left[\xi^2 \overleftrightarrow{\mathbf{G}}(\mathbf{r}, \mathbf{r}_n)\alpha_E \nabla \mathbf{E}(\mathbf{r}_n) + i\xi \nabla \times \overleftrightarrow{\mathbf{G}}(\mathbf{r}, \mathbf{r}_n)\alpha_H \nabla \mathbf{H}(\mathbf{r}_n)\right]\right\} \delta \boldsymbol{r}_n$$





Optimising Power Emission

$$\delta P = \mathrm{Im}\left\{ \mathbf{p}^* \cdot \left[\xi^2 \overleftrightarrow{\mathbf{G}}(\mathbf{r}', \mathbf{r}_n)\alpha_E \nabla \mathbf{E}(\mathbf{r}_n) + i\xi \nabla \times \overleftrightarrow{\mathbf{G}}(\mathbf{r}', \mathbf{r}_n)\alpha_H \nabla \mathbf{H}(\mathbf{r}_n) \right] \right\} \delta \boldsymbol{r}_n$$