Absorption Spectrum

With the optics features of **nextnano++**, the optical absorption spectrum can be calculated for various polarization directions.

Physics Model

Input File

Results

Transition Matrix Element

The transition matrix element $H_{ab}(k)$ is plotted in the function of $\vec{k}$ for a 1D structure in figure 1

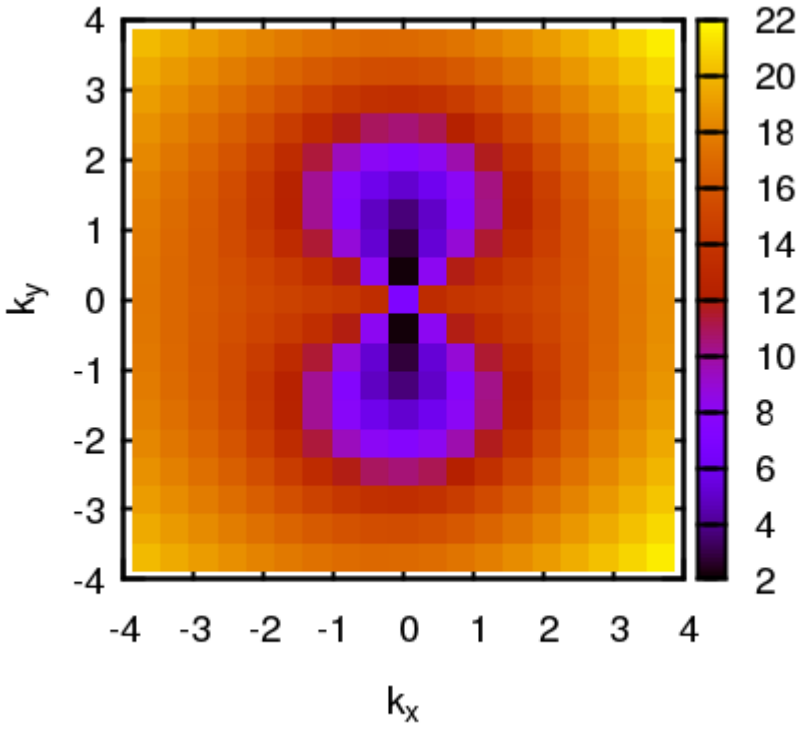

Figure 1: Transition matrix element in the $\vec{k}$ space

Eigenvalues

The first eigenfunction's energy in the kp-space is plotted in figure 2 for electrons, and in figure 3 for holes.

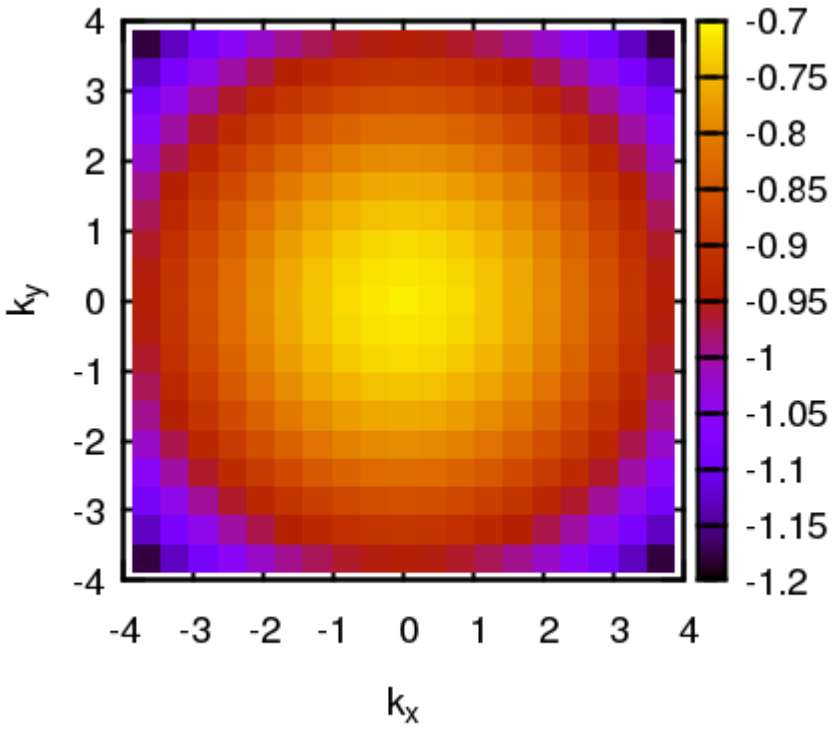

Figure 2: Energy dispersion relation in the $\vec{k}$ space for electrons

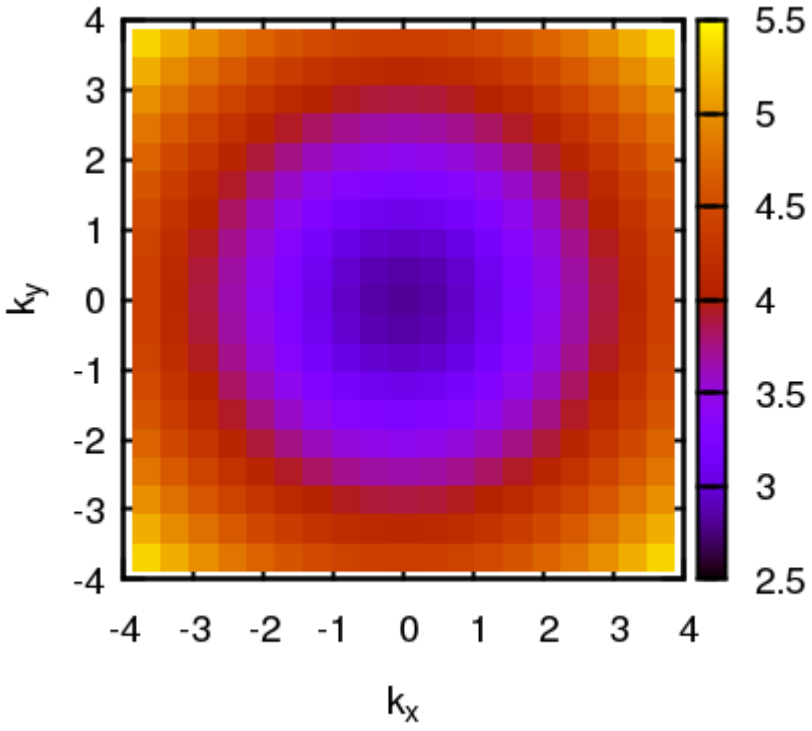

Figure 3: Energy dispersion relation in the $\vec{k}$ space for holes