

# 1D Transmission (CBR)

In this tutorial we calculate the transmission coefficient  $T(E)$  as a function of energy  $E$ . We consider the following pedagogical examples we learn in the beginning of quantum mechanics course.

- Single potential barrier
- Step potential
- Quantum well
- Double potential barrier

To obtain transmission spectra, we use **Contact Block Reduction (CBR)** method (see [documentation](#)). This tutorial is an analog of [nextnano3 tutorial](#).

## Reference

- Ballistic Quantum Transport using the Contact Block Reduction (CBR) Method - An introduction, S. Birner, C. Schindler, P. Greck, M. Sabathil, P. Vogl, Journal of Computational Electronics (2009)

## Single Potential Barrier

## Step Potential

## Quantum Well

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