Poisson Schrödinger solver for 1D hetero-structures

Objective

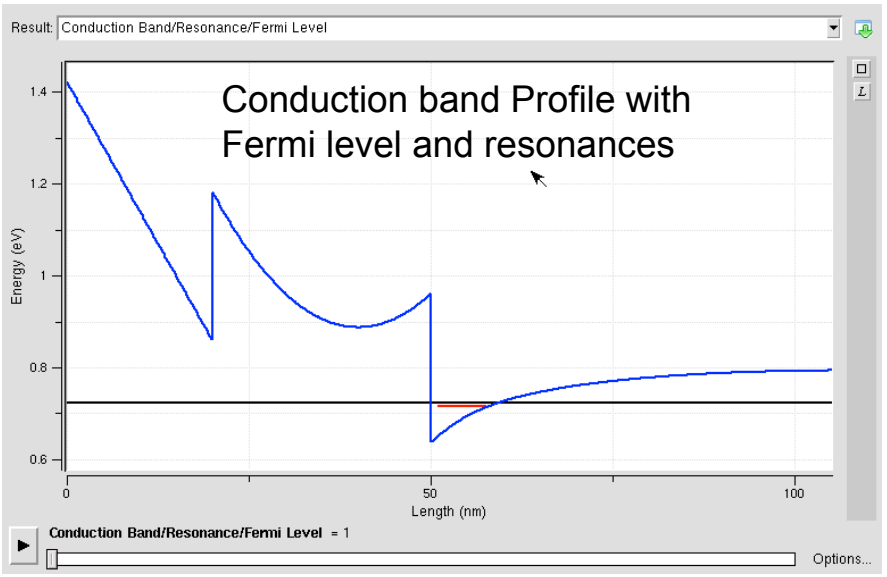
- Compute charge self-consistently with potential in confined states.

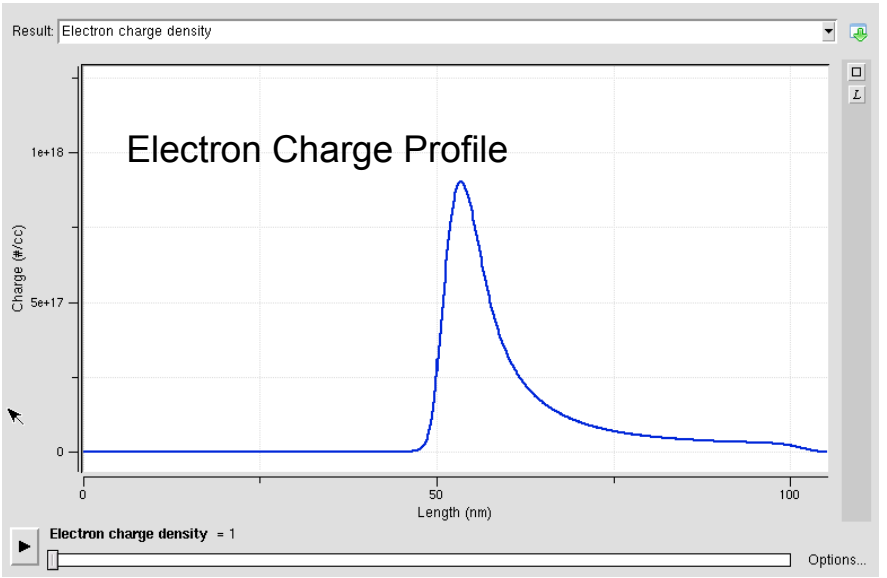
Approach

- Graphical interface with a detailed description of device geometry, delta doping and material parameters.
- Quasi-linearization of the Poisson equation to obtain stable convergence.
- Incorporate asymmetric boundary conditions for the Poisson equation by specifying the Dirichlet boundary condition on both sides.

Impact

- Tool on the nanoHUB: 1D-Hetero.
- 550 simulation runs from Jul-Nov 08.





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