

Figure 1: Conductance of QPC setup

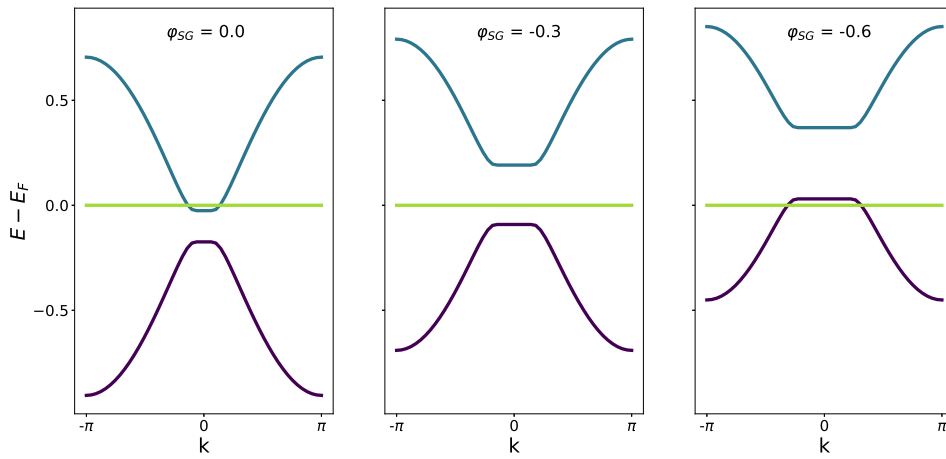


Figure 2: Banstructure for different values of splitgate

1 QPC

2 Waveguide

Less impact of stray fields

What could be done and has not been evaluated so far: * impact of disorder in the sample or in the leads * finite doping in the leads

3 Half barrier setup

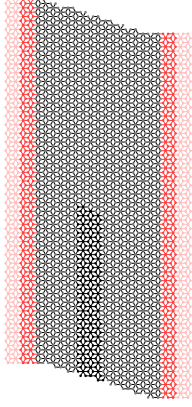


Figure 3: Lower finger

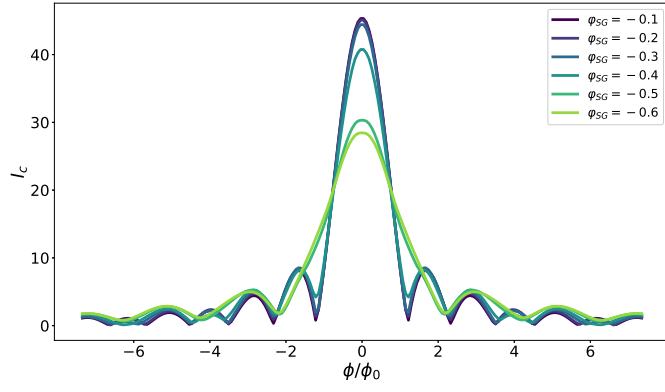


Figure 4: Critical current of lower finger

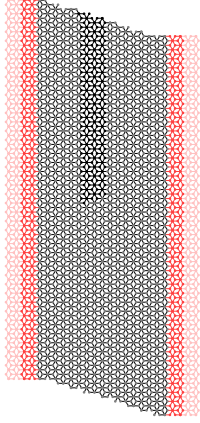


Figure 5: Upper finger

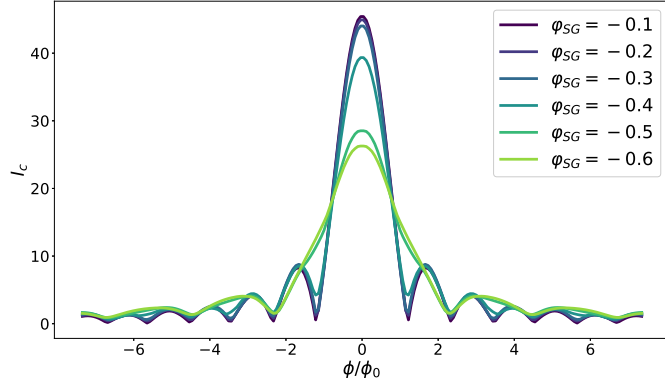


Figure 6: Critical current of upper finger

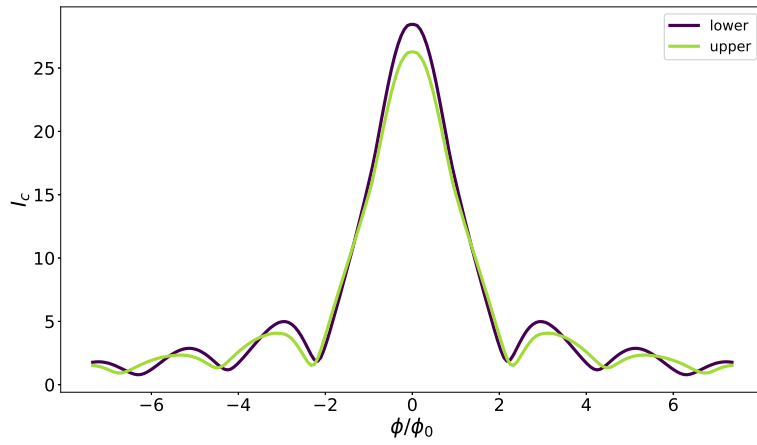


Figure 7: Comparing critical current curves for upper and lower finger of constriction at the same topgate voltage