Motivation

- Transport in anisotropic materials happen in multi valleys
- Effective mass should be made valley-dependent in devices made of such materials

Approach

- Take into account all transport valleys when calculating Schrödinger equation in effective mass basis
- Current from multi valleys are summed
- Allow users input values of valley mass to count for scattering, strain, etc.

Results

- Valleys are treated as a quantum number and parallelized along with momentum and energy
- Benchmark is needed for correct sub-band level and transport behaviours