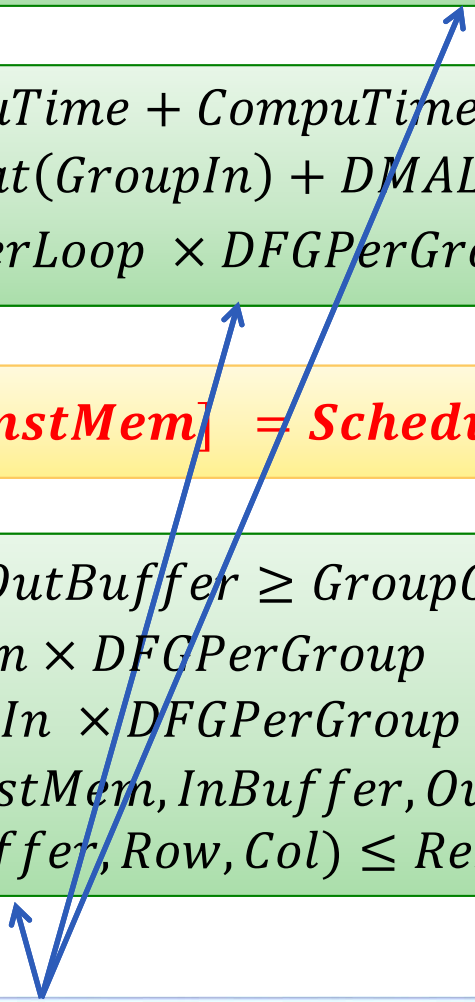
$$Energy = LoopRuntime \times Power(AccelConfig)$$
$$EnergyDelayProduct = LoopRuntime \times Energy$$

$$LoopRuntime = CommuTime + CompuTime$$
$$CommuTime = \big(DMALat(GroupIn) + DMALat(GroupOut)\big) \times GroupPerLoop$$
$$CompuTime = GroupPerLoop \times DFGPerGroup \times DFGLat \times ImplFreq$$

$$[\boldsymbol{DFGLat, DataMem, InstMem}] = \boldsymbol{Scheduling(Row, Col, Unrolling)}$$

$$InBuffer \geq GroupIn, OutBuffer \geq GroupOut$$
$$InAddrBuffer \geq DFGIn \times DFGPerGroup$$
$$OutAddrBuffer \geq DFGIn \times DFGPerGroup$$
$$Resource(DataMem, InstMem, InBuffer, OutBuffer, InAddrBuffer, OutAddrBuffer, Row, Col) \leq ResourceBudget$$



Most parameters can be modeled easily.