```
auto shift_idx = (lane_id >> log_gap);
auto tmp1 = ((shift_idx + 1) \& 1);
auto tqt_idx = lane_id + (((tmp1 <<1)-1) << log_qap);
int slot idx = 0:
for (; slot_idx < LOCAL_REG_SLOTS; slot_idx++){</pre>
 auto req_idx = tmp1 + (slot_idx << 1);
 data[req_idx] = sq.shuffle(data[req_idx], tqt_idx);
```