Evaluation Metric

✓ Congestion Metric

- Average Congestion Edge (ACE)
    - ACE will be calculated by iccad2012_evaluate_solution.pl
    - For detailed information on ACE
        - Reference : Y. Wei et. al. "GLARE: Global and local wiring aware routability evaluation," Design Automation Conference, 2012

✓ Peak Weighted Congestion (PWC)

- $k_1=k_2=k_3=k_4=1.0$ **(May be adjusted during the contest)**

$$PWC = \frac{k_1 \times ACE(0.5) + k_2 \times ACE(1.0) + k_3 \times ACE(2.0) + k_4 \times ACE(5.0)}{k_1 + k_2 + k_3 + k_4}$$

✓ Routing Congestion (RC)

- RC = MAX (100 , PWC)

✓ Final Evaluation Metric

$$AREA \times (1 + 0.02(RC - 100)) \times (1 + RunTime\_Factor)$$

- For every 1% excess routing congestion (RC), there is a 2% area penalty
- +/- 4% advantage for a 2X speedup/slow down (Capped at +/- 10%)