

Pairwise Learning to Rank

- Ideally perfect partial order leads to perfect ranking
 - $f \rightarrow$ **partial order** \rightarrow order \rightarrow metric
- Ordinal regression
 - $O(f(Q, D), Y) = \sum_{i \neq j} \delta(y_i > y_j) \delta(f(q_i, d_i) > f(q_j, d_j))$
 - Relative ordering between different documents is significant
 - E.g., (0 \rightarrow -2, 2 \rightarrow 4) is better than (0 \rightarrow 1, 2 \rightarrow 0)
 - Large body of work