Pairwise Learning to Rank

• Ideally perfect partial order leads to perfect ranking

 $-f \rightarrow$ **partial order** \rightarrow order \rightarrow metric

• Ordinal regression

 $- \operatorname{O}(f(Q,D),Y) = \sum_{i \neq j} \delta(y_i > y_j) \delta(f(q_i,d_i) < f(q_i,d_i))$

 Relative ordering between different documents is significant

