

How to Design a Ranking Function

- **Query:** $q = q_1, \dots, q_m$, where $q_i \in V$
- **Document:** $d = d_1, \dots, d_n$, where $d_i \in V$
- **Ranking function:** $f(q, d) \in \mathbb{R}$
- A good ranking function should rank relevant documents on top of non-relevant ones
- Key challenge: how to measure the likelihood that document d is relevant to query q
- **Retrieval model** = formalization of relevance (give a computational definition of relevance)