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Notation

Meaning	Notation
Single query	q
Single document	d
Set of queries	Q
Collection of documents	D
Term in query q	t_q
Term in document d	t_d
Full vocabulary of all terms	T
Set of ranked results retrieved for query q	R_q
Result tuple (document d at rank i)	$\langle i, d \rangle$, where $\langle i, d \rangle \in R_q$
Relevance label of document d for query q	$rel_q(d)$
d_i is more relevant than d_j for query q	$rel_q(d_i) > rel_q(d_j)$, or $d_i \succ_q d_j$
Frequency of term t in document d	$tf(t, d)$
Number of documents that contain term t	$df(t)$
Vector representation of text z	$\vec{z}$
Probability function for an event $\mathcal{E}$	$p(\mathcal{E})$
$\mathbb{R}$	The set of real numbers

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