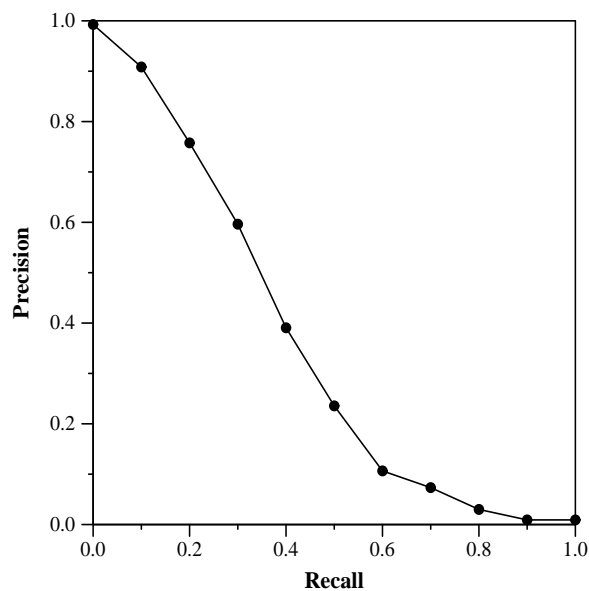
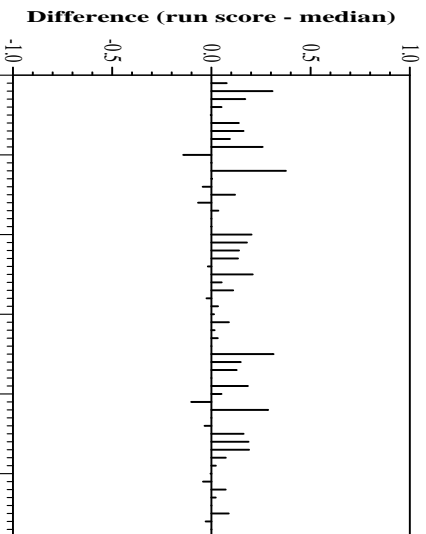


## Deep Learning Track results — (PASH) PingAn Smart Health

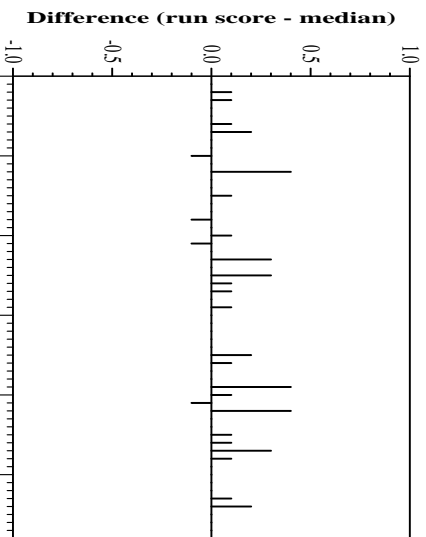
Run Description	
Run ID:	pash_doc_f5
Task:	Document Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	Yes
Used deep nn model?	Pre-trained model
Type of training:	This year's MS MARCO training data
Pre-processing/indexing cost:	The open source pre-trained docT5query model is used to predict queries for passages or segment passages(for documents). The process of query generation takes 8 days on 64 Tesla V100 GPUs(16GB). Indexing the collection takes 1.5 hours on 32 threads.
Query processing cost:	In the pointwise stage, inference on all queries takes approximately 5 hours on 8 Tesla V100 GPUs(16GB). In the pairwise stage, inference on all queries takes approximately 5 hours on 16 Tesla V100 GPUs(16GB).

Overall measures		Document Level Averages	
Number of topics	57		Precision
Total number retrieved	5700	At 5 docs	0.9298
Total relevant	8203	At 10 docs	0.8947
Total relevant retrieved	2824	At 15 docs	0.8503
MAP	0.3521	At 20 docs	0.8219
Mean NDCG@10	0.7368	At 30 docs	0.7561
Mean Reciprocal Rank	0.9795	R-Precision	
		Exact	0.4012

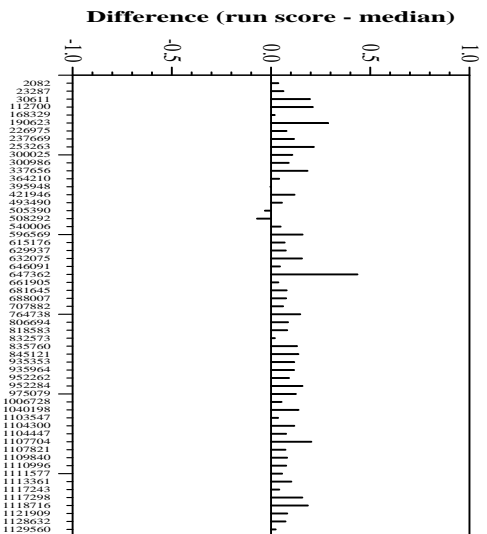




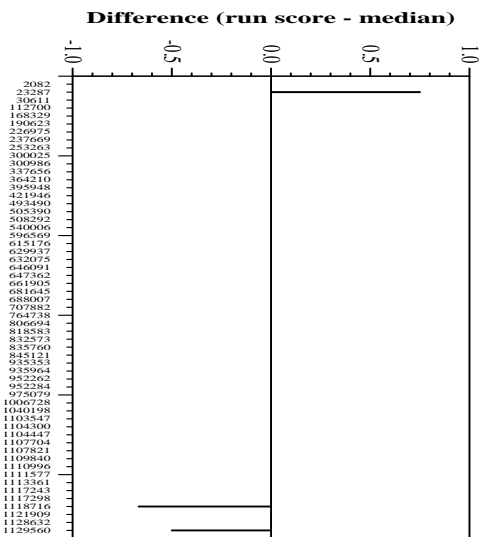
Per-topic difference from median for NDCG@10 for Document Ranking runs



Per-topic difference from median for Prec@10 for Document Ranking runs



Per-topic difference from median for Average Precision for Document Ranking runs



Per-topic difference from median for Reciprocal Rank for Document Ranking runs