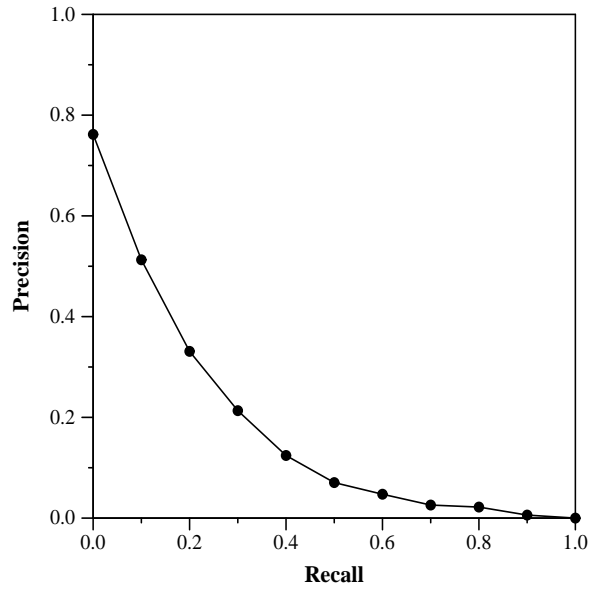
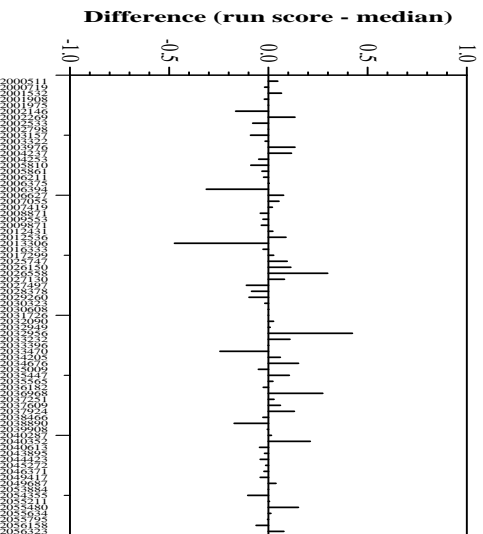


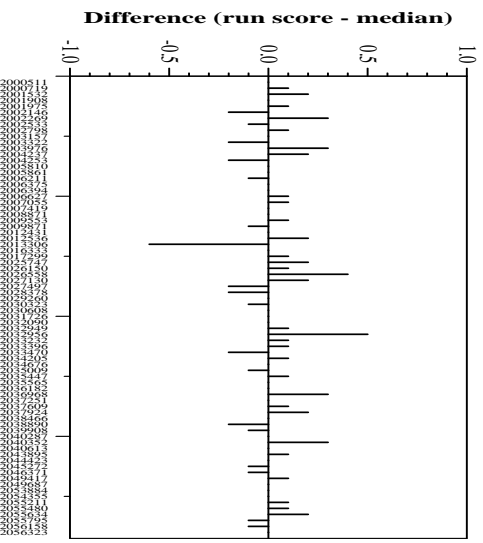
Run Description	
Run ID:	p_dhr
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	Yes
Dense retrieval?	Yes
Baseline run?	No
Used deep nn model?	Pre-trained model
Type of training:	Previous year's MS MARCO training data
Training cost:	Training teacher and student models plus HNM require around 2 days in four V100 GPUs.
Pre-processing/indexing cost:	Index requires 3 hours with 8 A6000 GPUs.
Query processing cost:	We use brute-force search on GPU, which takes around 50ms/q on 8 GPUs.

Overall measures		Document Level Averages	
Number of topics	76		Precision
Total number retrieved	6598	At 5 docs	0.5158
Total relevant	4613	At 10 docs	0.4632
Total relevant retrieved	1188	At 15 docs	0.4035
MAP	0.1622	At 20 docs	0.3658
Mean NDCG@10	0.5410	At 30 docs	0.3096
Mean Reciprocal Rank	0.6990	R-Precision	
		Exact	0.2425

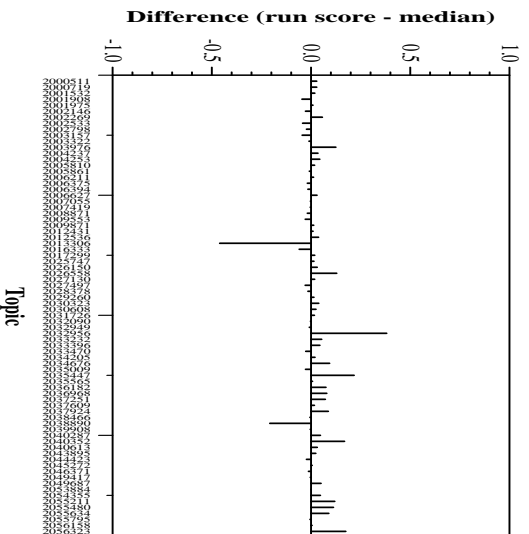




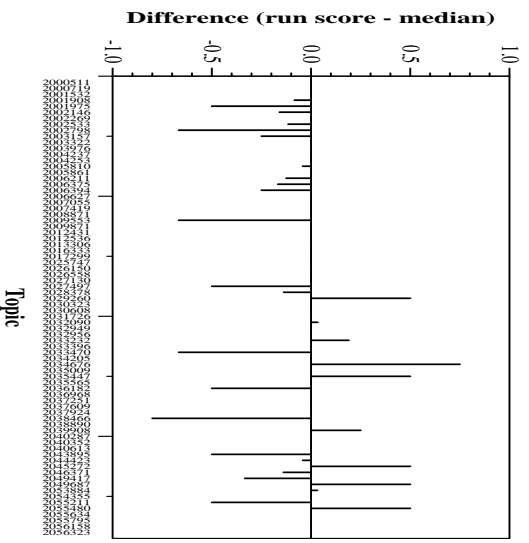
Per-topic difference from median for NDCG@10 for Passage Ranking runs



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



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



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