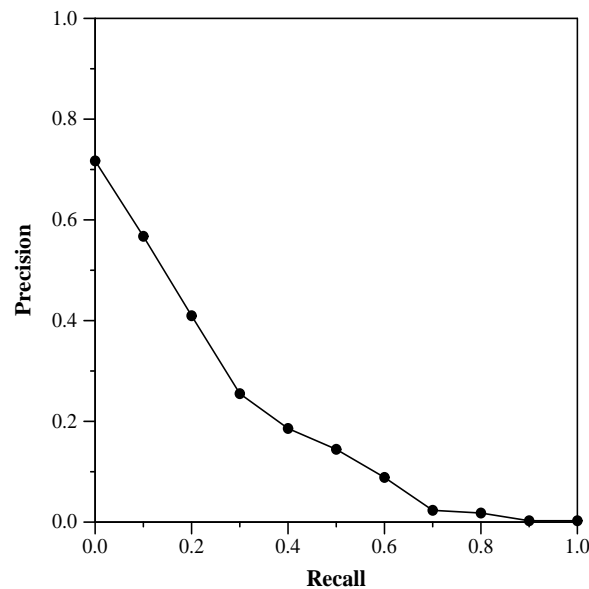
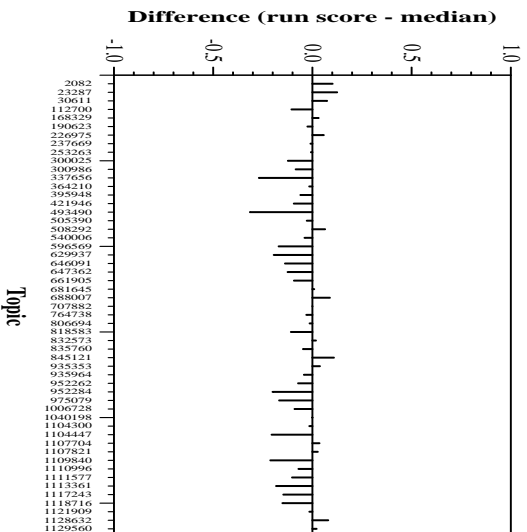


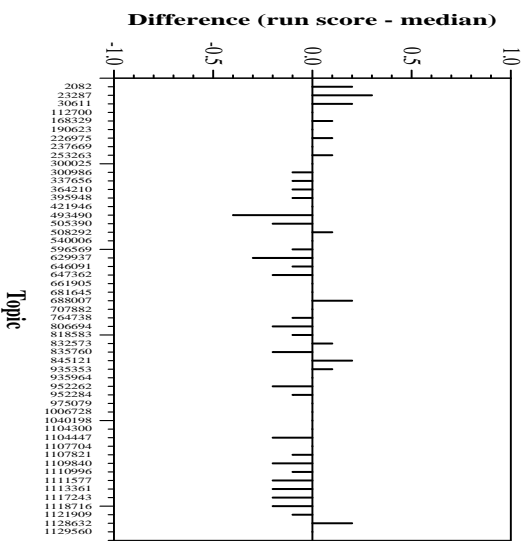
Run Description	
Run ID:	Fast_Forward_3
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	No
Used deep nn model?	Pre-trained model
Type of training:	Previous year's MS MARCO training data
Pre-processing/indexing cost:	The dense indexing cost would be roughly 1-2 weeks on 4 V100. Sparse indexing takes an hour on the CPU.
Query processing cost:	We have used the CPU for query processing. The approximate processing cost is 349ms per query (174ms sparse retrieval, 167ms dense query encoding, and lookups, 8ms for interpolation). These times depend on the system load factor.

Overall measures		Document Level Averages	
Number of topics	53		Precision
Total number retrieved	5300	At 5 docs	0.4981
Total relevant	3427	At 10 docs	0.4642
Total relevant retrieved	1108	At 15 docs	0.4075
MAP	0.1927	At 20 docs	0.3896
Mean NDCG@10	0.5451	At 30 docs	0.3371
Mean Reciprocal Rank	0.6401		R-Precision
		Exact	0.2669

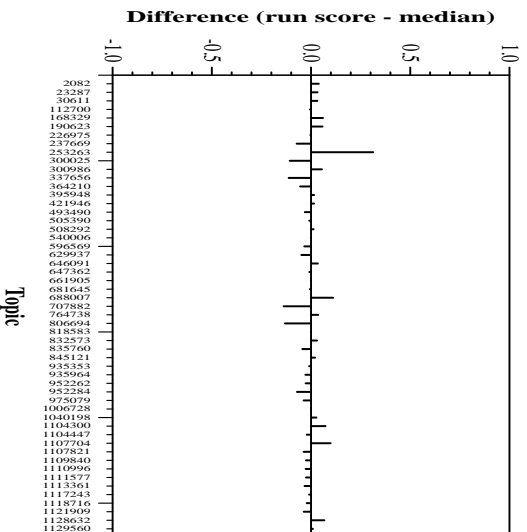




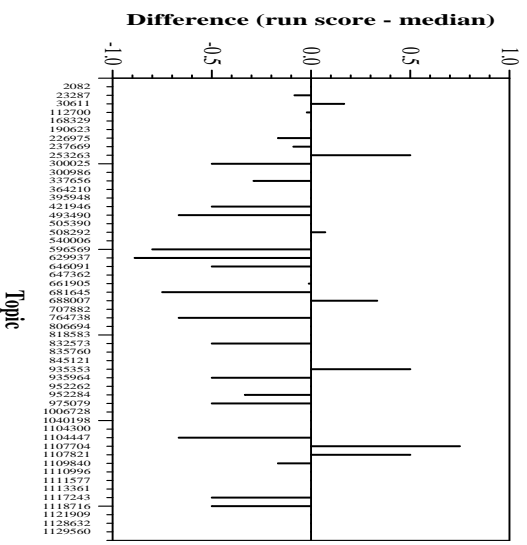
Per-topic difference from median for NDCG@10 for Passage Ranking runs



Per-topic difference from median for Precision 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