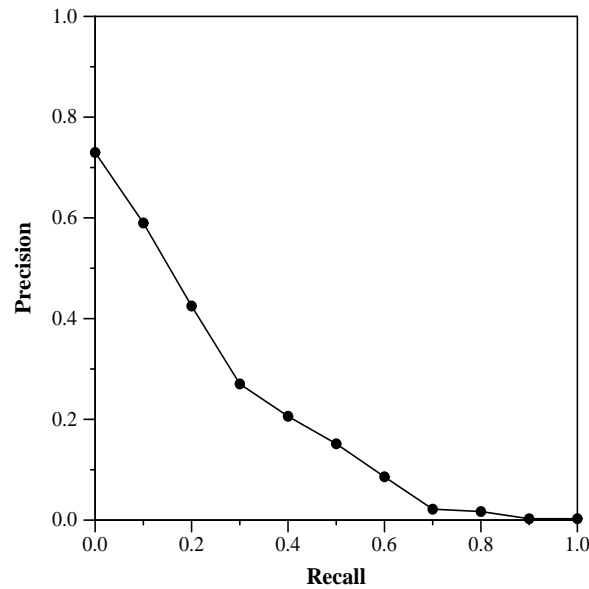
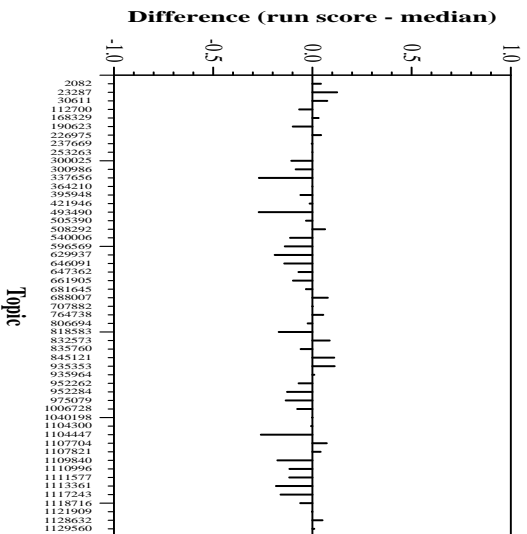


Deep Learning Track results — (L3S) L3S Research Center, Leibniz University Hannover, Germany

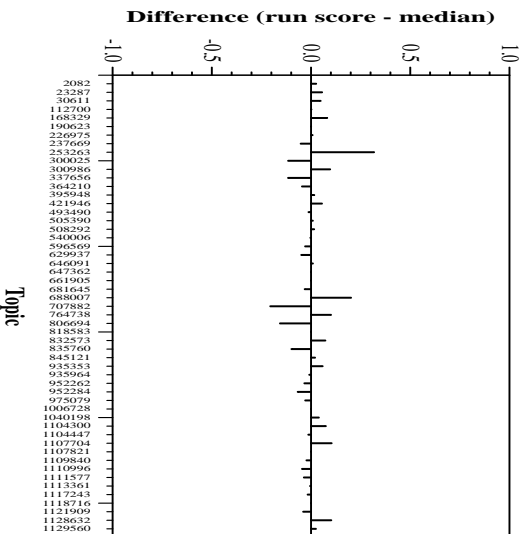
Run Description	
Run ID:	Fast_ForwardP_2
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	No
Used deep nn model?	Pre-trained model
Type of training:	Previous year's MS MARCO training data
Pre-processing/indexing cost:	The 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	0.5132
Total relevant	3427	At 10 docs	0.4717
Total relevant retrieved	1128	At 15 docs	0.4126
MAP	0.1998	At 20 docs	0.3887
Mean NDCG@10	0.5521	At 30 docs	0.3465
Mean Reciprocal Rank	0.6486		
		R-Precision	
		Exact	0.2716

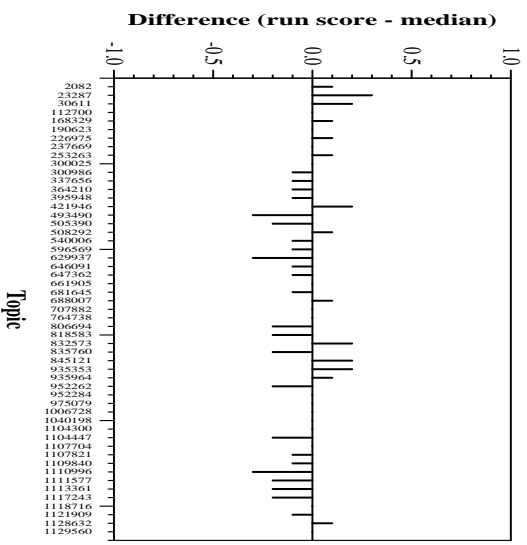




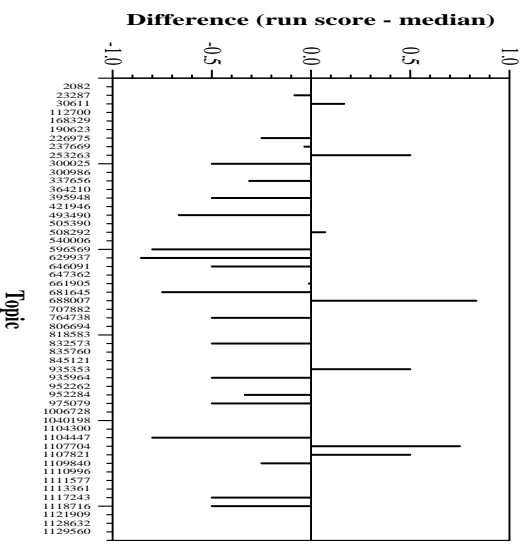
Per-topic difference from median for NDCG@10 for Passage Ranking runs



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



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



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