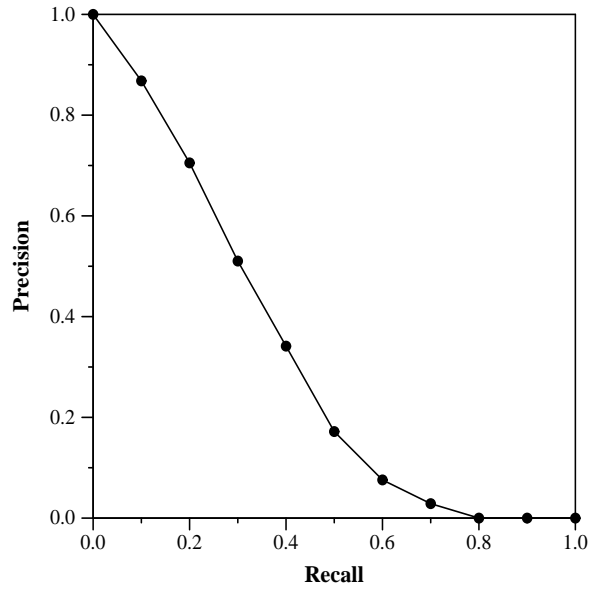
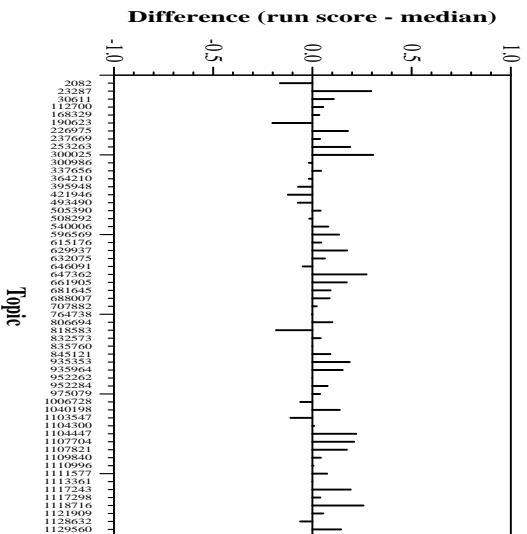


Deep Learning Track results — (NLE) Naver Labs Europe

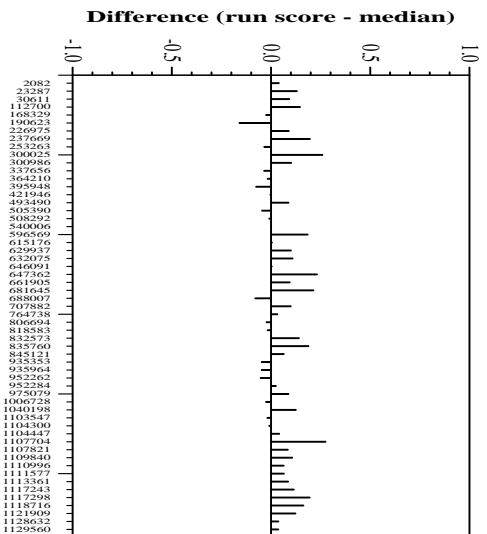
Run Description	
Run ID:	NLE_D_v1
Task:	Document Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	No
Used deep nn model?	Pre-trained model
Type of training:	Previous year's MS MARCO training data
Pre-processing/indexing cost:	1 day on 4V100 for indexing. Index takes ~100 GB after finished. Index is then used only on CPU
Query processing cost:	Approximative values: First stage ranker takes 1 sec per query on 24 cpus. 5 of the 7 rerankers take 2 sec per query on 4 V100. 2 of the 7 rerankers take 200 ms per query on 4 V100. So in total it takes 11.4sec per query on 24 cpus + 4V100

Overall measures		Document Level Averages	
Number of topics	57		Precision
Total number retrieved	5700	At 5 docs	0.9158
Total relevant	8203	At 10 docs	0.8719
Total relevant retrieved	2655	At 15 docs	0.8222
MAP	0.3133	At 20 docs	0.7833
Mean NDCG@10	0.7215	At 30 docs	0.7029
Mean Reciprocal Rank	1.0000		
		R-Precision	
		Exact	0.3768

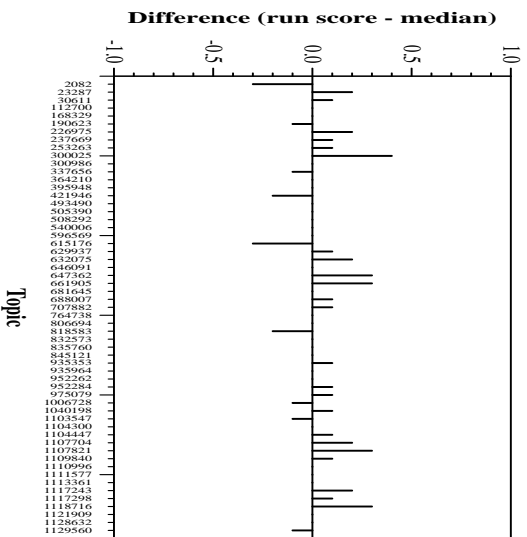




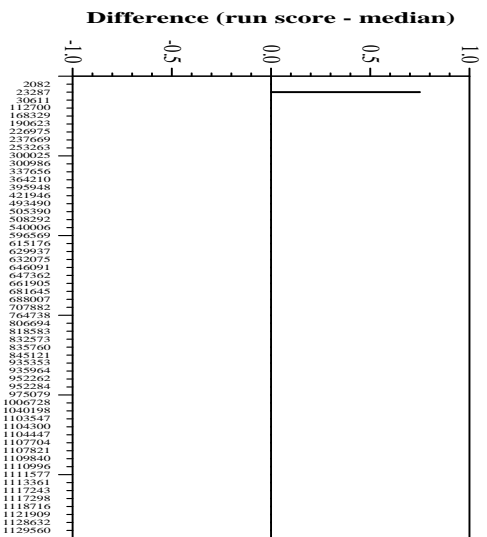
Per-topic difference from median for NDCG@10 for Document Ranking runs



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



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



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