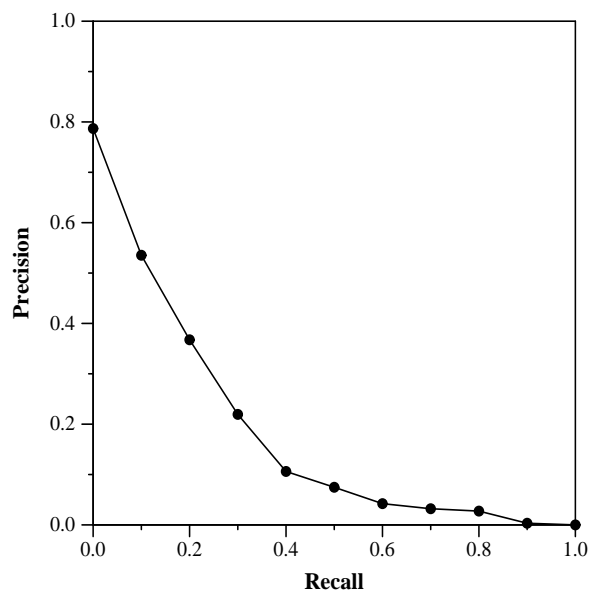
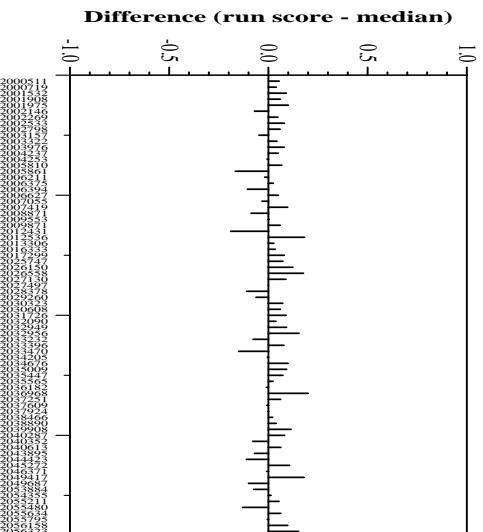


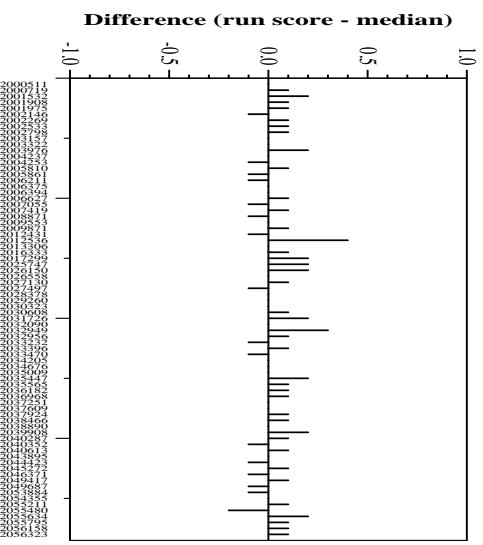
Run Description	
Run ID:	hierarchical_combination
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	Yes
Baseline run?	No
Used deep nn model?	Pre-trained model
Type of training:	This year's MS MARCO training data; Previous year's MS MARCO training data
Training cost:	Only GAT model's parameters were tuned on the CLEF-IP2013 Passage Retrieval task data, all other models were pre-trained.
Pre-processing/indexing cost:	Colbert index was created using 2 GPU's in around 5 days.
Query processing cost:	All 3 combined systems consist of ranking followed by reranking. Reranking with BERT and MiniLM-L12 model is done on the fly, reranking using GAT and Colbert is described in Albarede et al.: Passage Retrieval on Structured Documents Using Graph Attention Networks, ECIR 2022.

Overall measures		Document Level Averages	
Number of topics	76		Precision
Total number retrieved	6837	At 5 docs	0.5553
Total relevant	4613	At 10 docs	0.4803
Total relevant retrieved	1206	At 15 docs	0.4228
MAP	0.1701	At 20 docs	0.3770
Mean NDCG@10	0.5617	At 30 docs	0.3114
Mean Reciprocal Rank	0.7363	R-Precision	
		Exact	0.2442

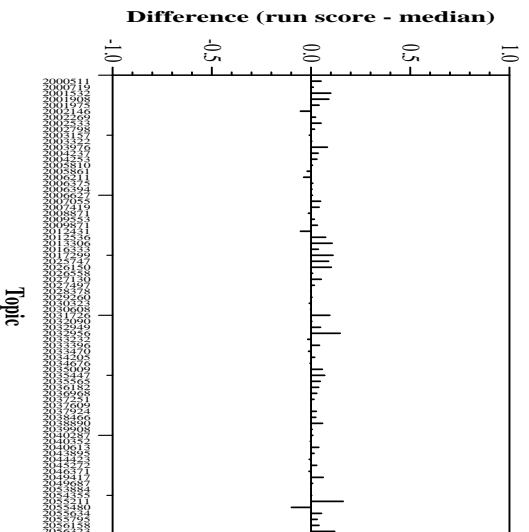




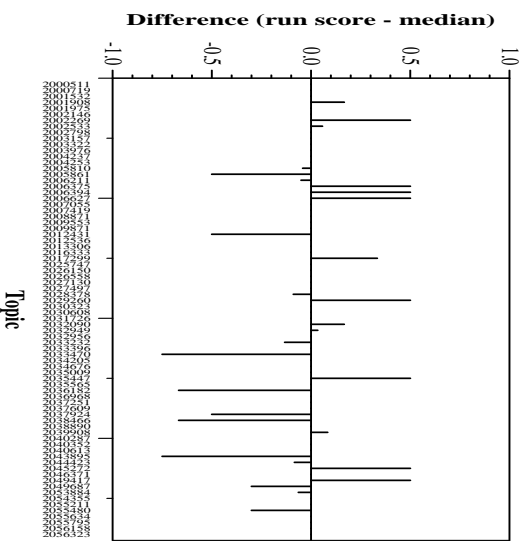
Per-topic difference from median for NDCG@10 for Passage Ranking runs



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