Dear Editors:

We would like to submit a research paper entitled “Dynamic Hash Tables on GPUs” for your consideration to IEEE Transactions on Knowledge and Data Engineering (TKDE).

In this manuscript, we propose a novel hash table design for GPUs that is catered for the dynamic scenario. Our contributions over existing works are mainly two-fold: (1) we devise an efficient resizing strategy without rehashing the entire table against the dynamic scenario and the strategy ensures a guaranteed filled factor for efficient GPU memory utilization; (2) we propose a two-layer cuckoo hashing scheme that supports high search performance with at most two lookups while supporting efficient resizing.

This work is a fresh submission and is not submitted to elsewhere. We believe that this manuscript is proper for publication by TKDE. We confirm that all authors are aware of the submission and agree to its review by TKDE.

Thanks for your consideration of this manuscript.

Your sincerely,

Yuchen, Jing, Yue, Zheng, Zhongdong and Jianling