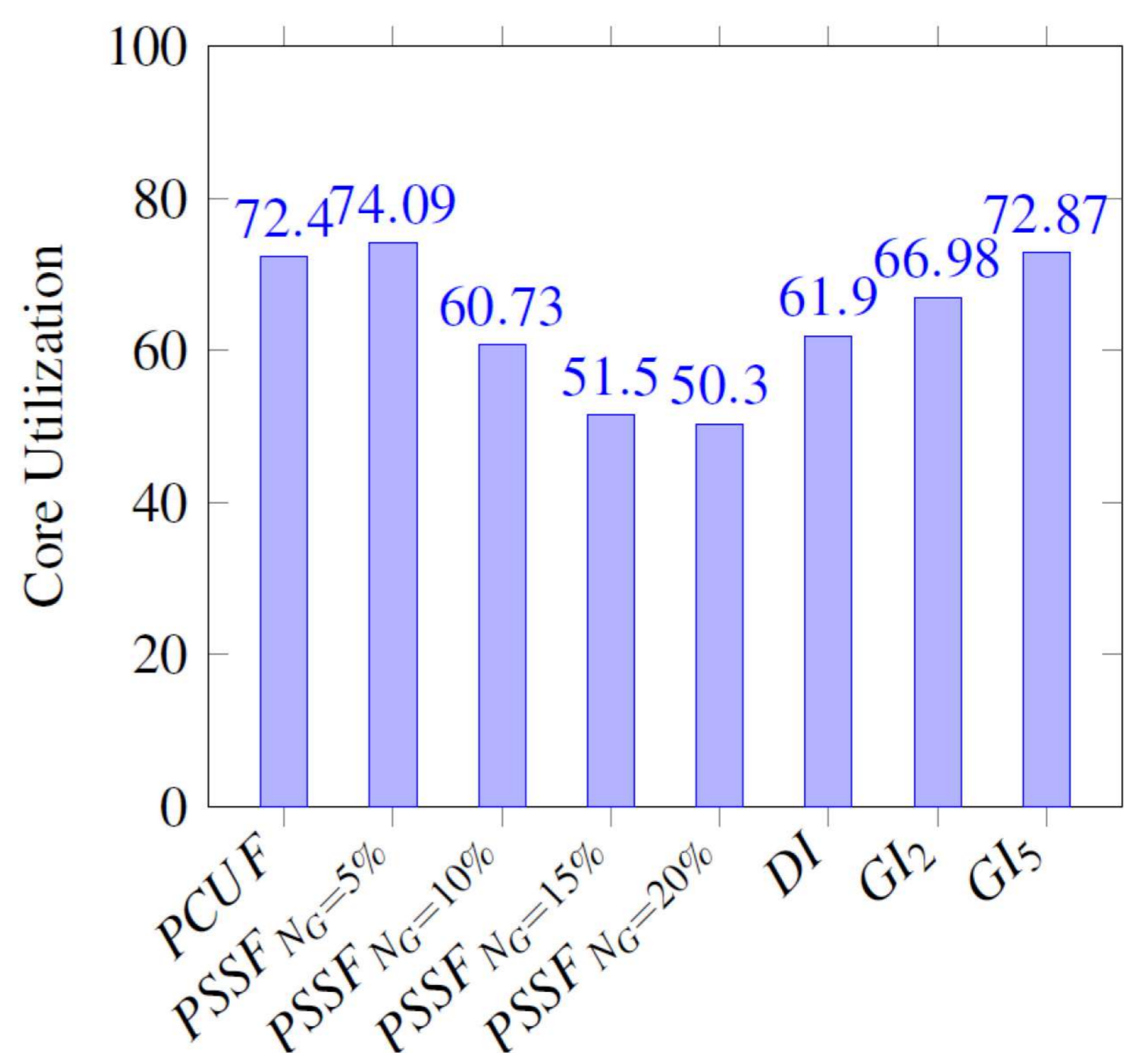
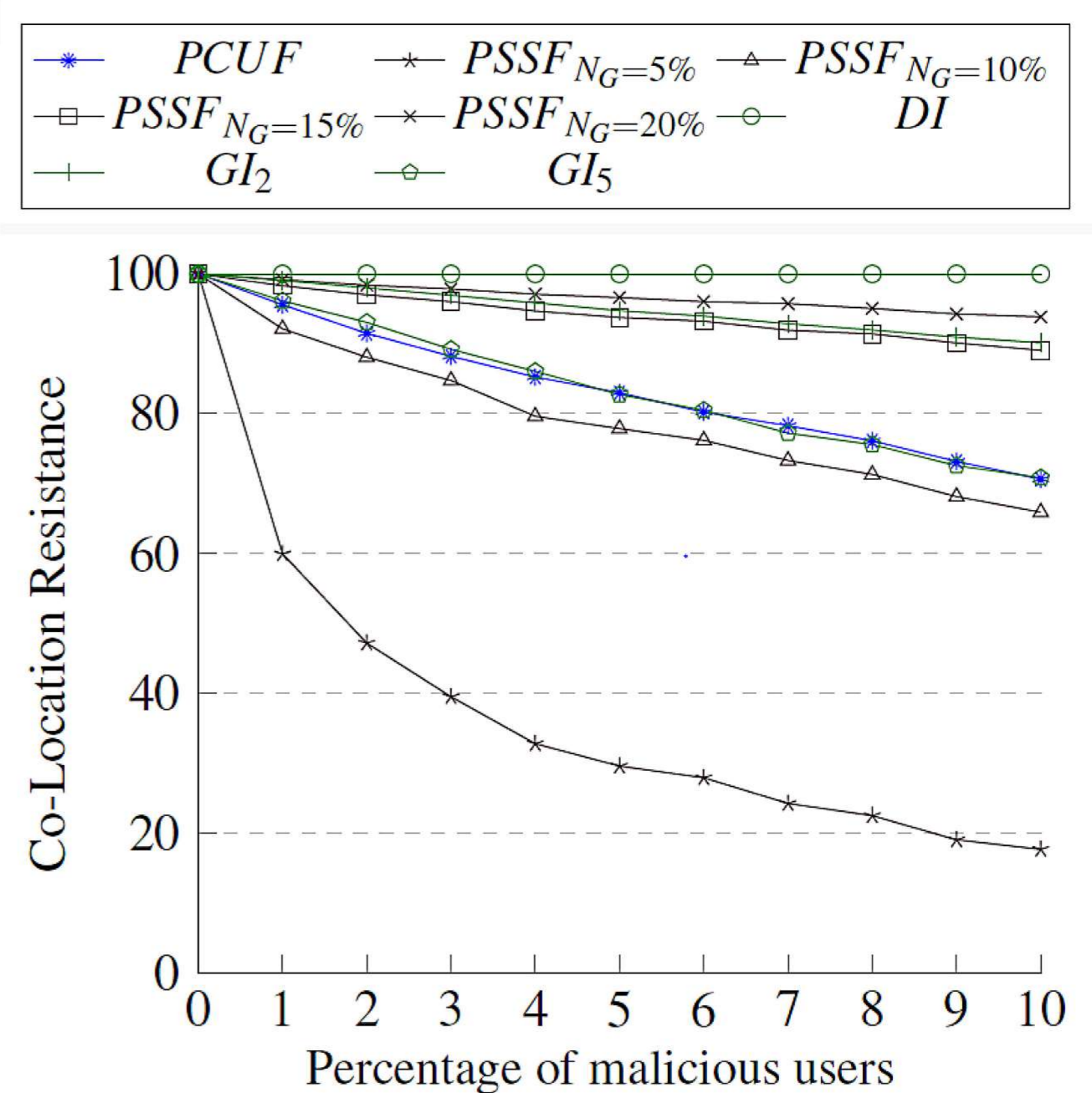


# Grouped Instance: A defensive mechanism against co-resident attacks on public cloud infrastructures

A virtual machine (VM) placement algorithm that reduces the chance to conduct co-resident attack successfully.

- Based on the idea of limiting a malicious user effective attack range by dividing users into small groups during VM allocation phase.
- Simple yet effective and configurable to satisfy demands of different groups of user, in terms of financial aspect and security aspect.
- Algorithm's performance has been analyzed theoretically and empirically.



The performance of this algorithm was compared empirically against Dedicated Instances (DI), Previously Selected Server First (PSSF) and Previously Co-located User First (PCUF) using Microsoft Azure Public VM Dataset.