

# Άσκηση 1

# Γενικές Παρατηρήσεις

Τι περιμένουμε να δούμε:

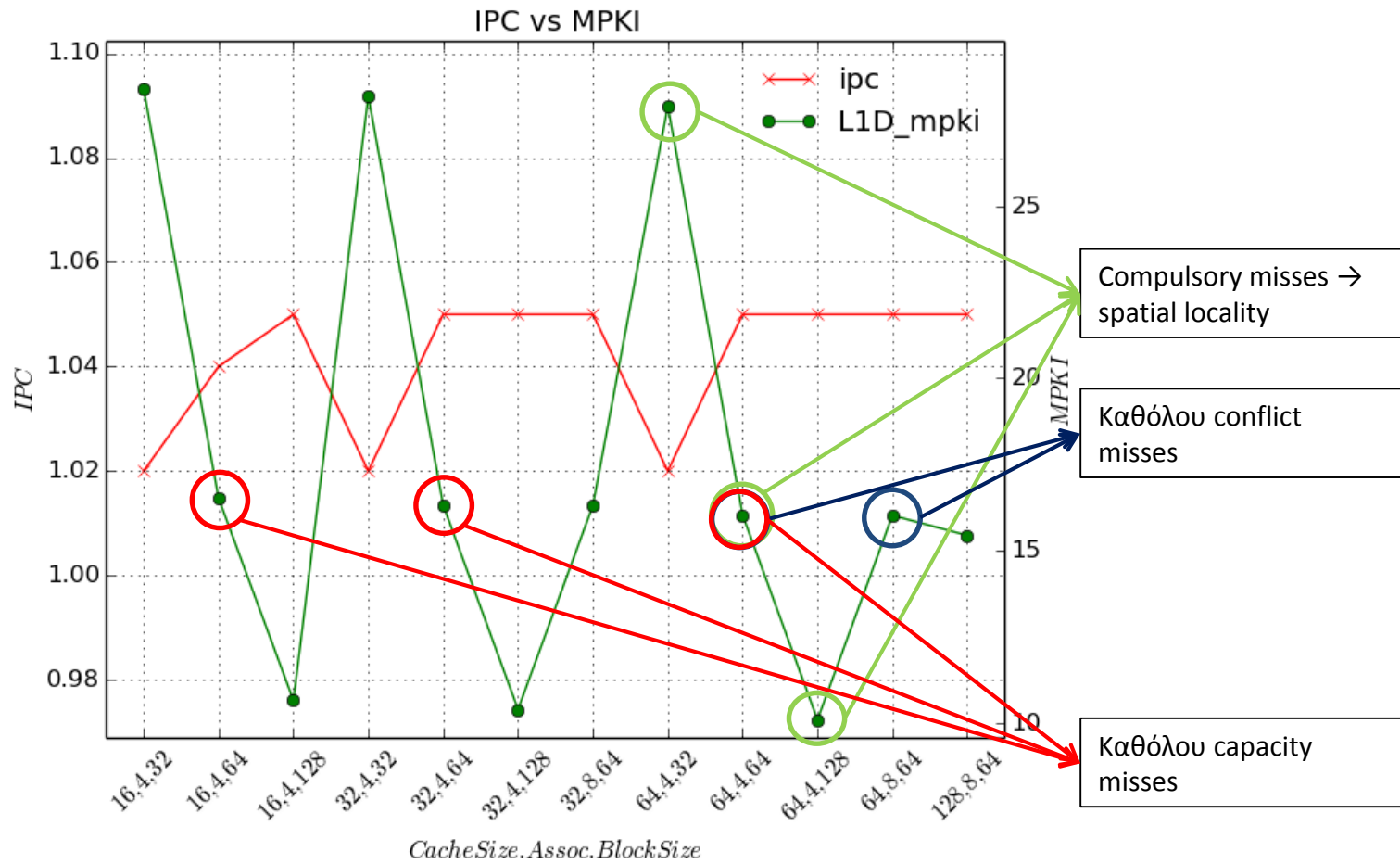
1. Μεγαλύτερη χωρητικότητα → Μείωση *capacity misses* → Βελτίωση απόδοσης
2. Μεγαλύτερο associativity → Μείωση *conflict misses* → Βελτίωση απόδοσης
3. Μεγαλύτερο block size → Μείωση *compulsory misses* → Βελτίωση απόδοσης (?)

Τι μπορούμε να συμπεράνουμε για την εφαρμογή:

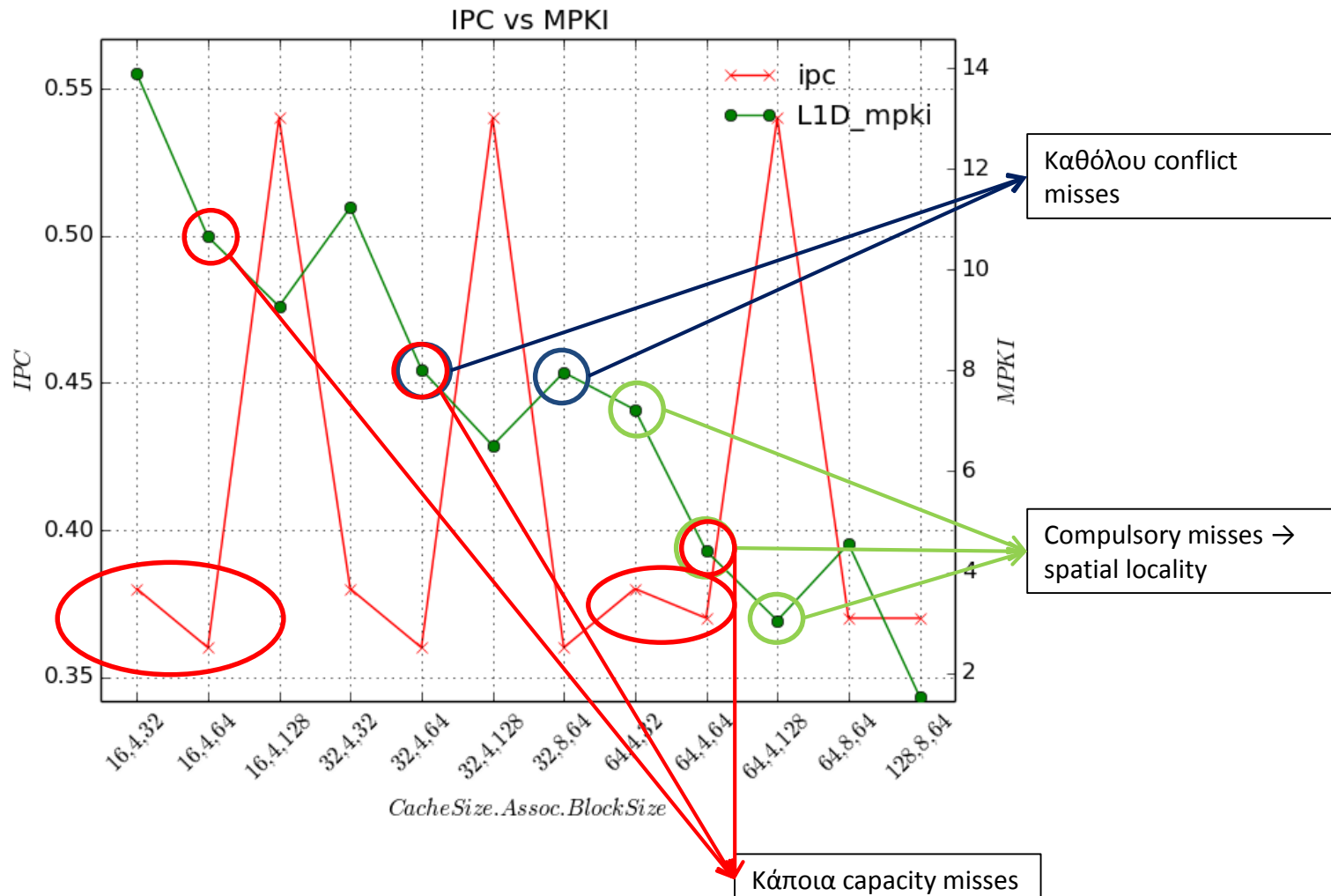
- ✓ Working set size
- ✓ Access pattern (stream vs. reuse, stride, conflicts)
- ✓ Cache sensitivity

# Διαφορετικά L1D/L1I Configurations

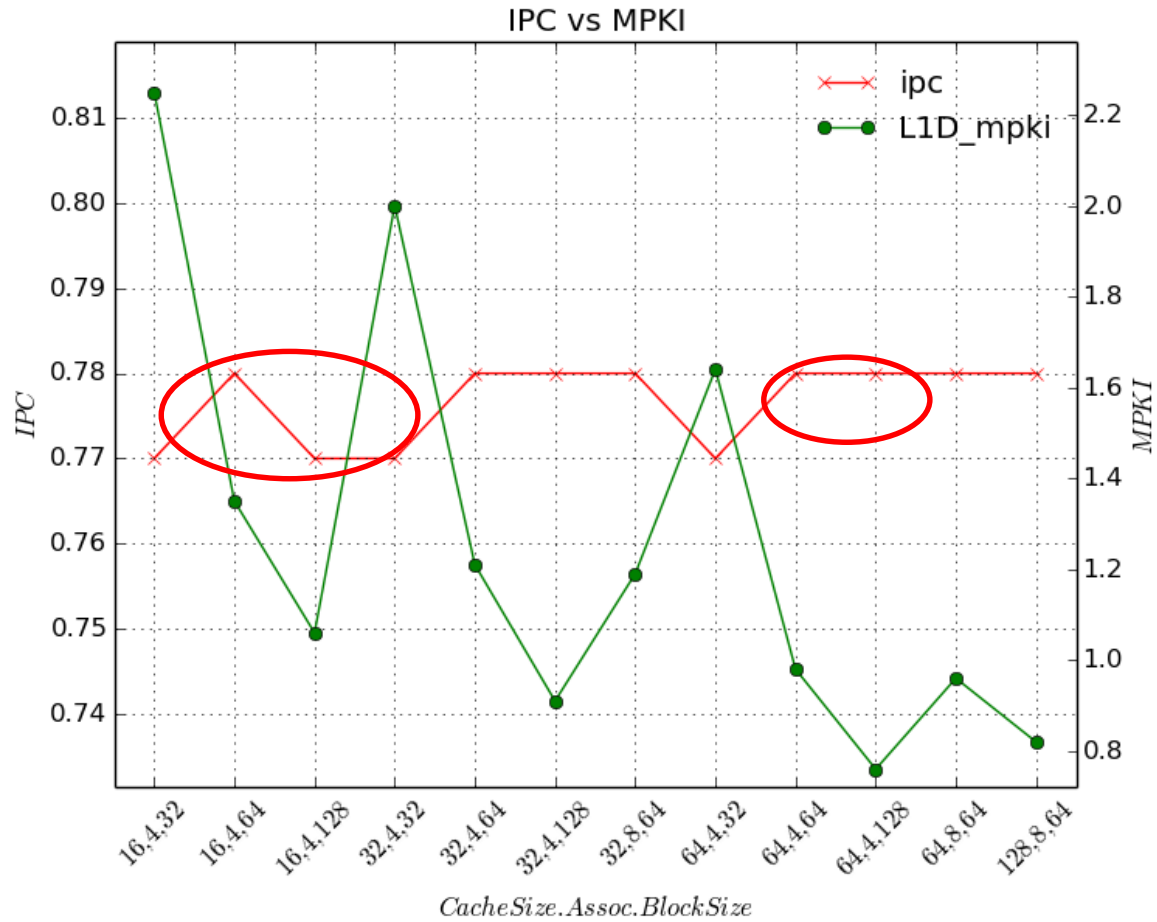
# streamcluster



# dedup

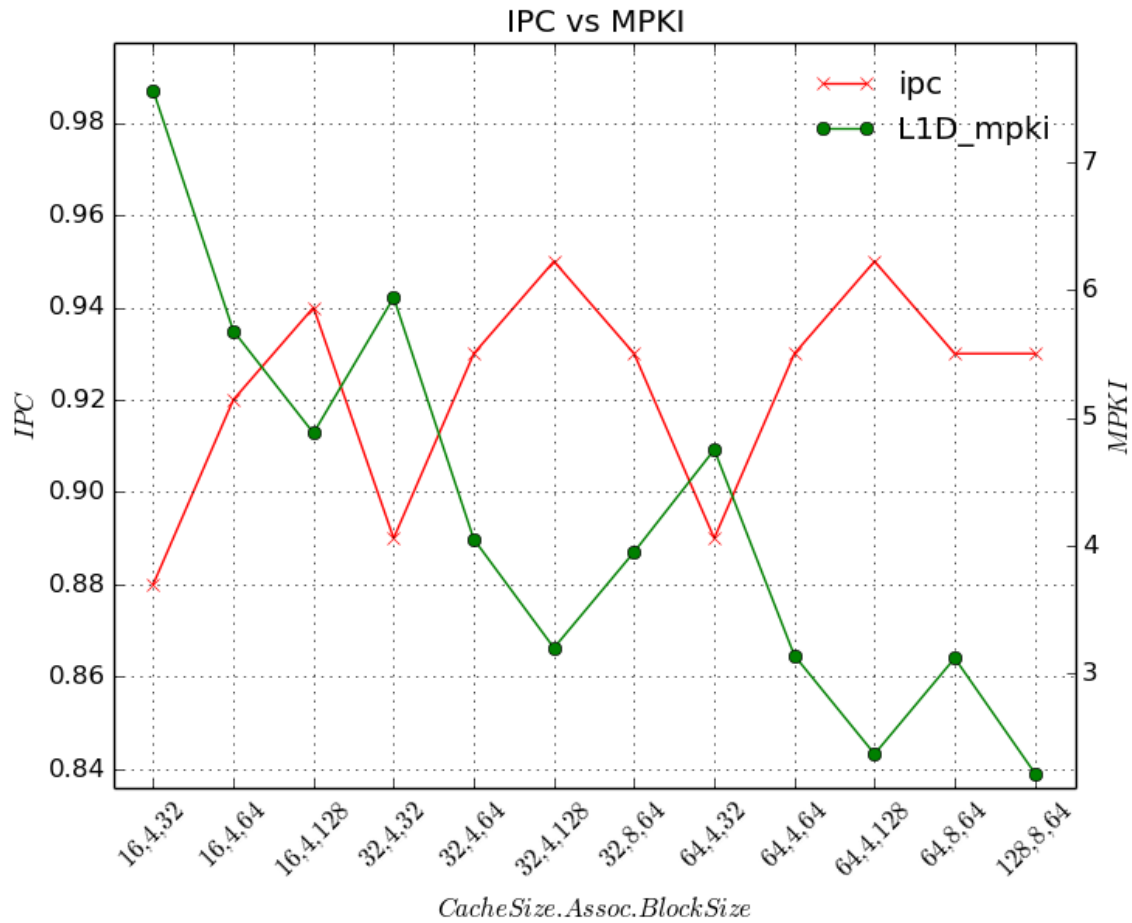


# fluidanimate



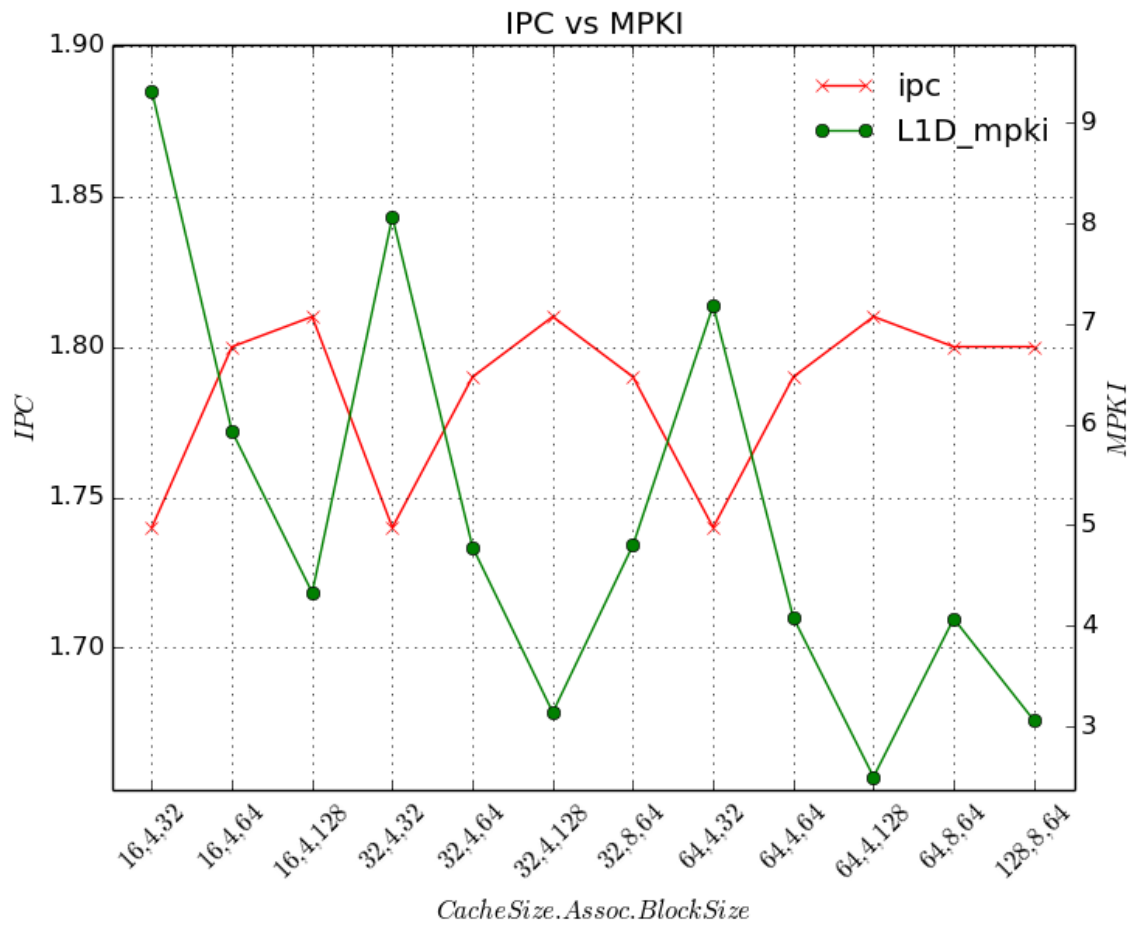
Αντίστοιχα με το dedup

# freqmine



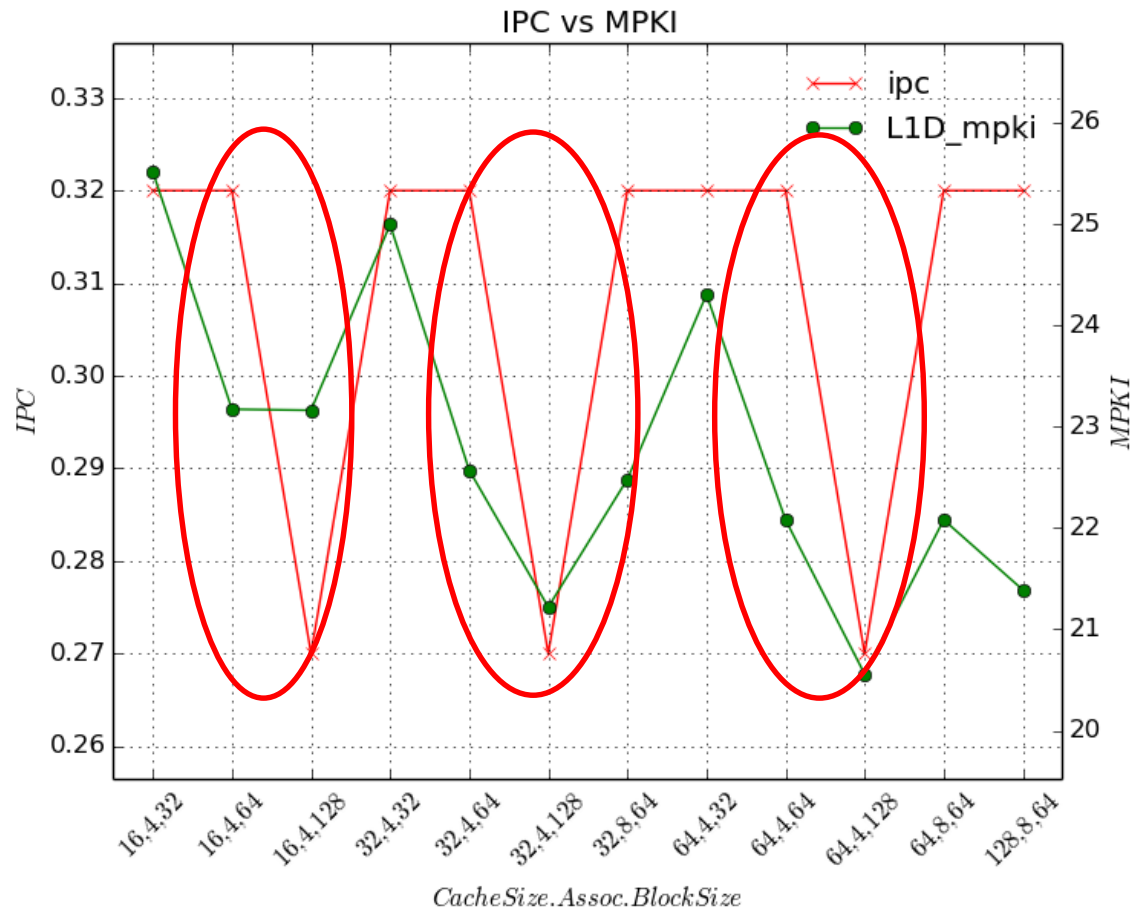
Αντίστοιχα με το dedup

# vips



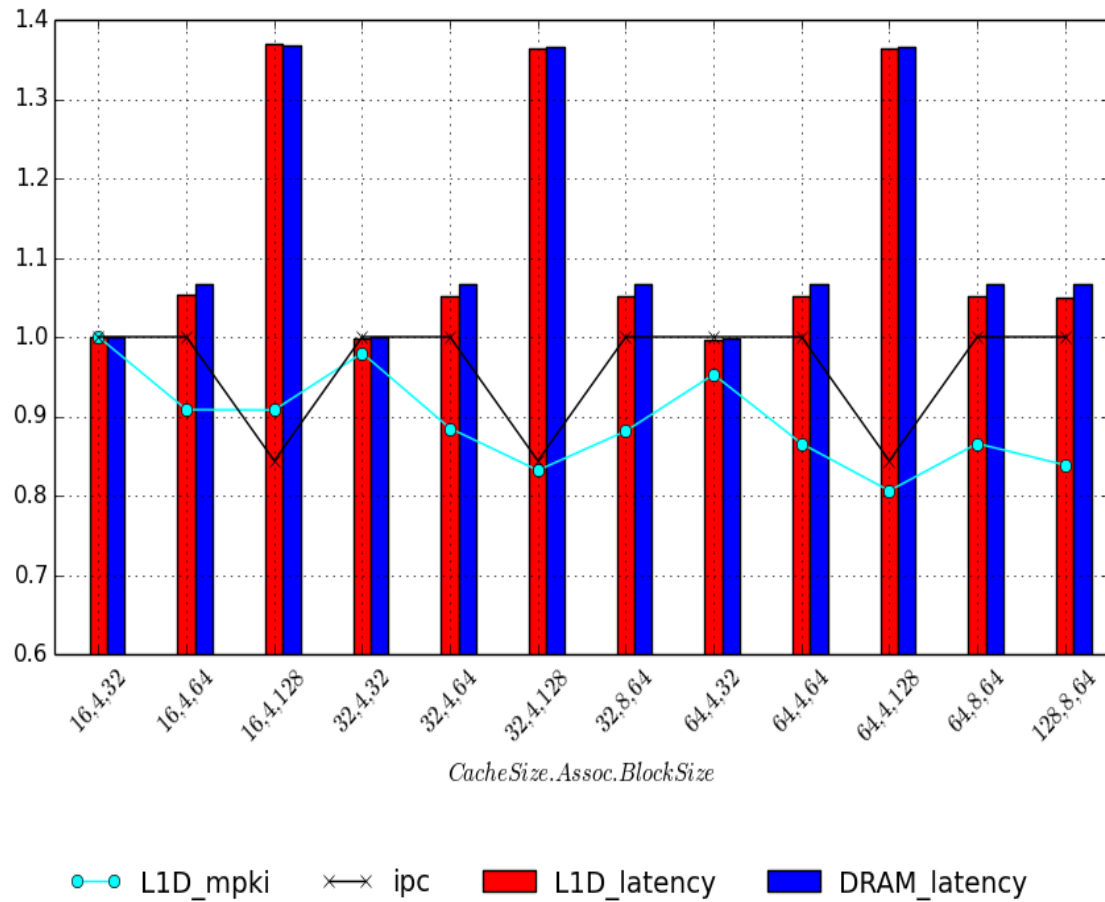


# canneal

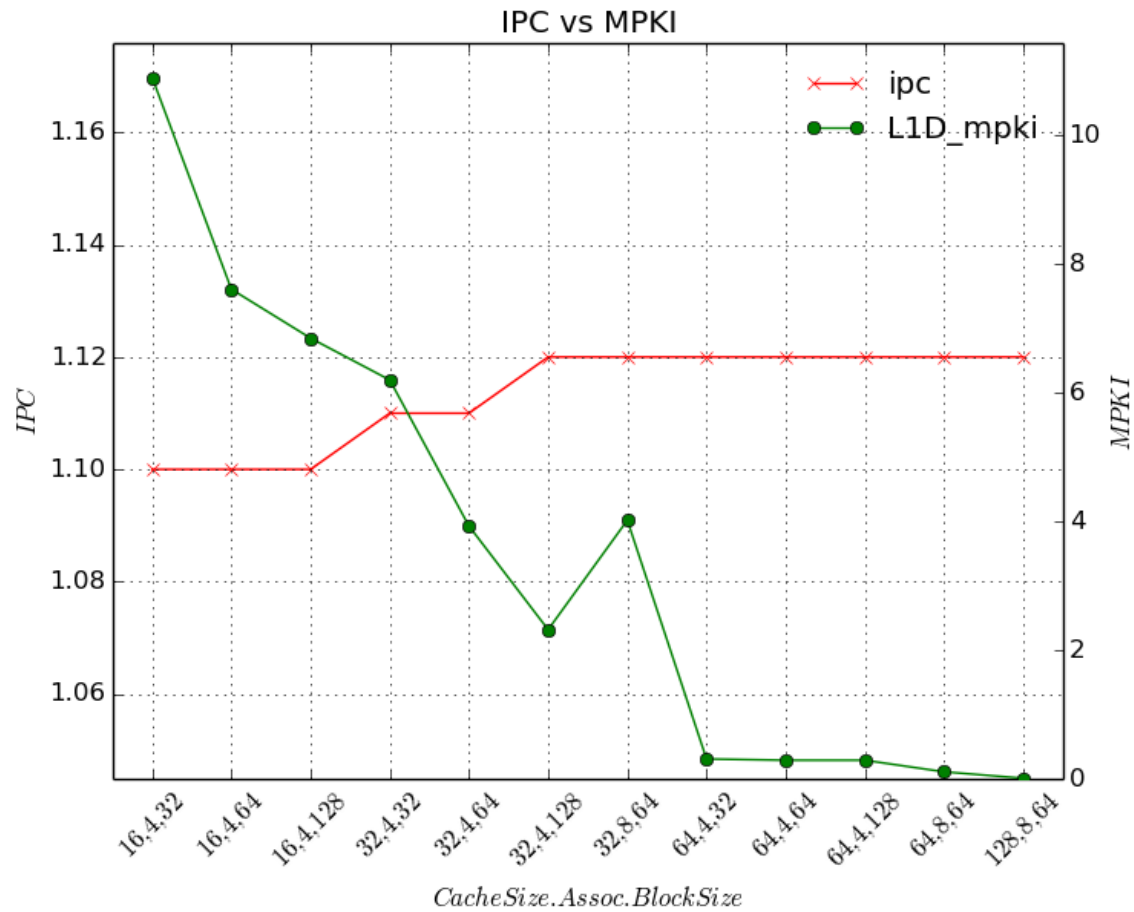


Αντίστοιχα με το dedup

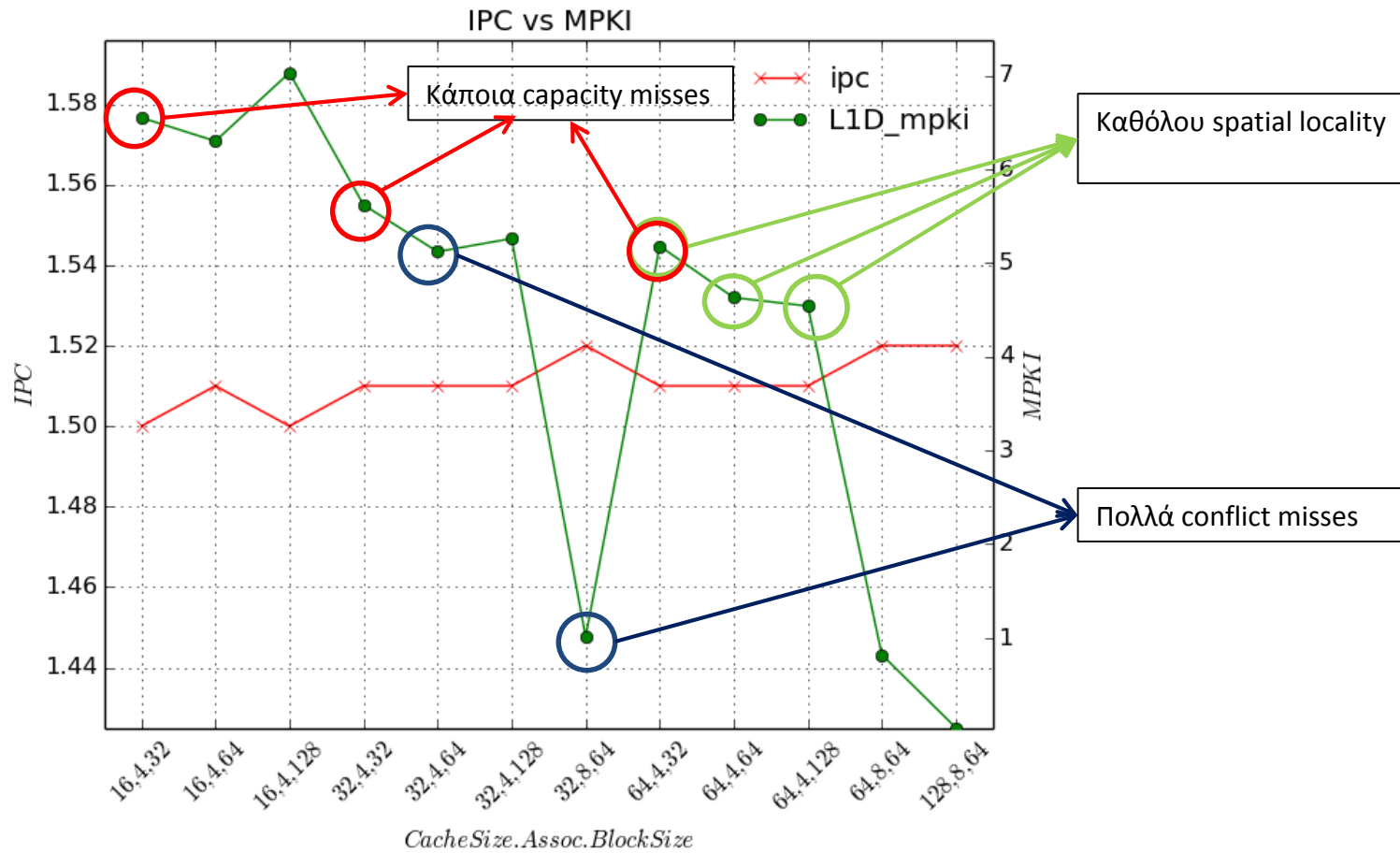
# canneal



# swaptions

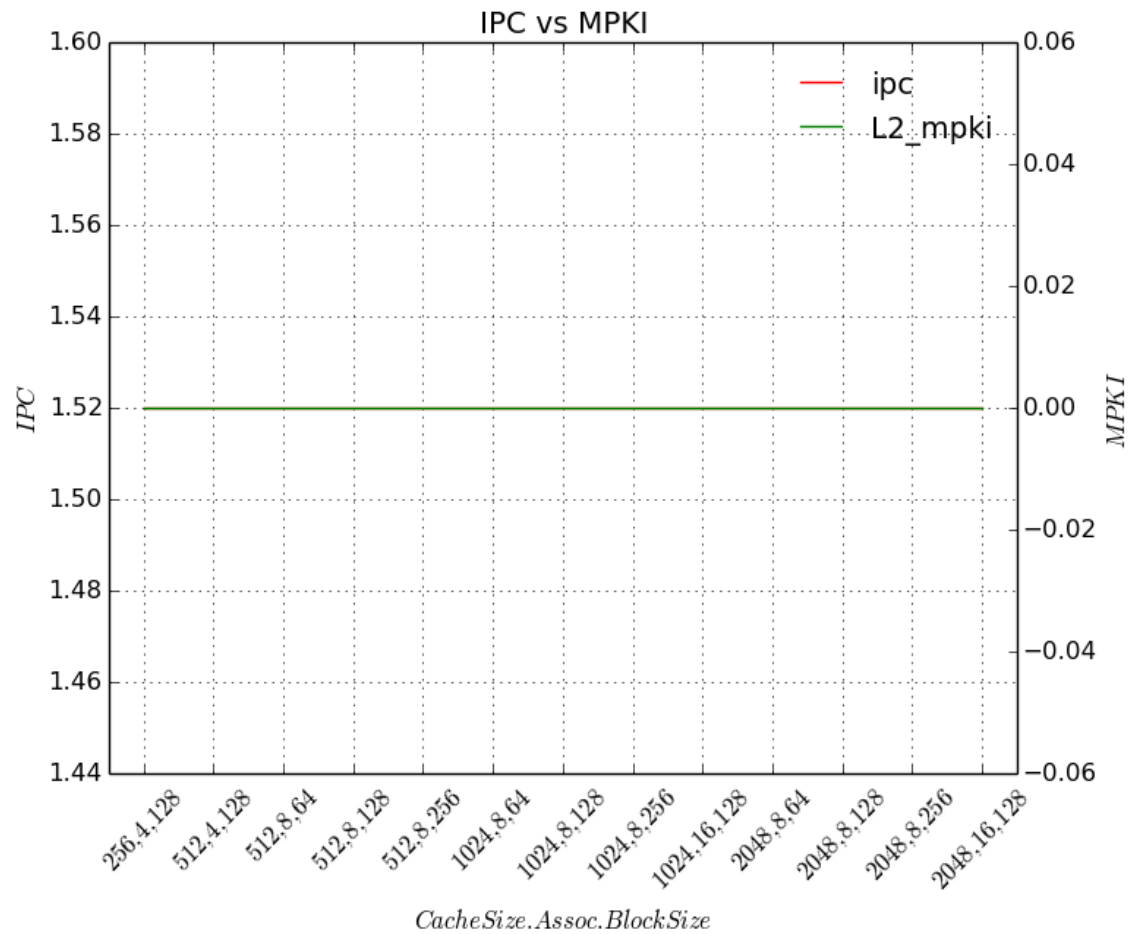


# blackscholes

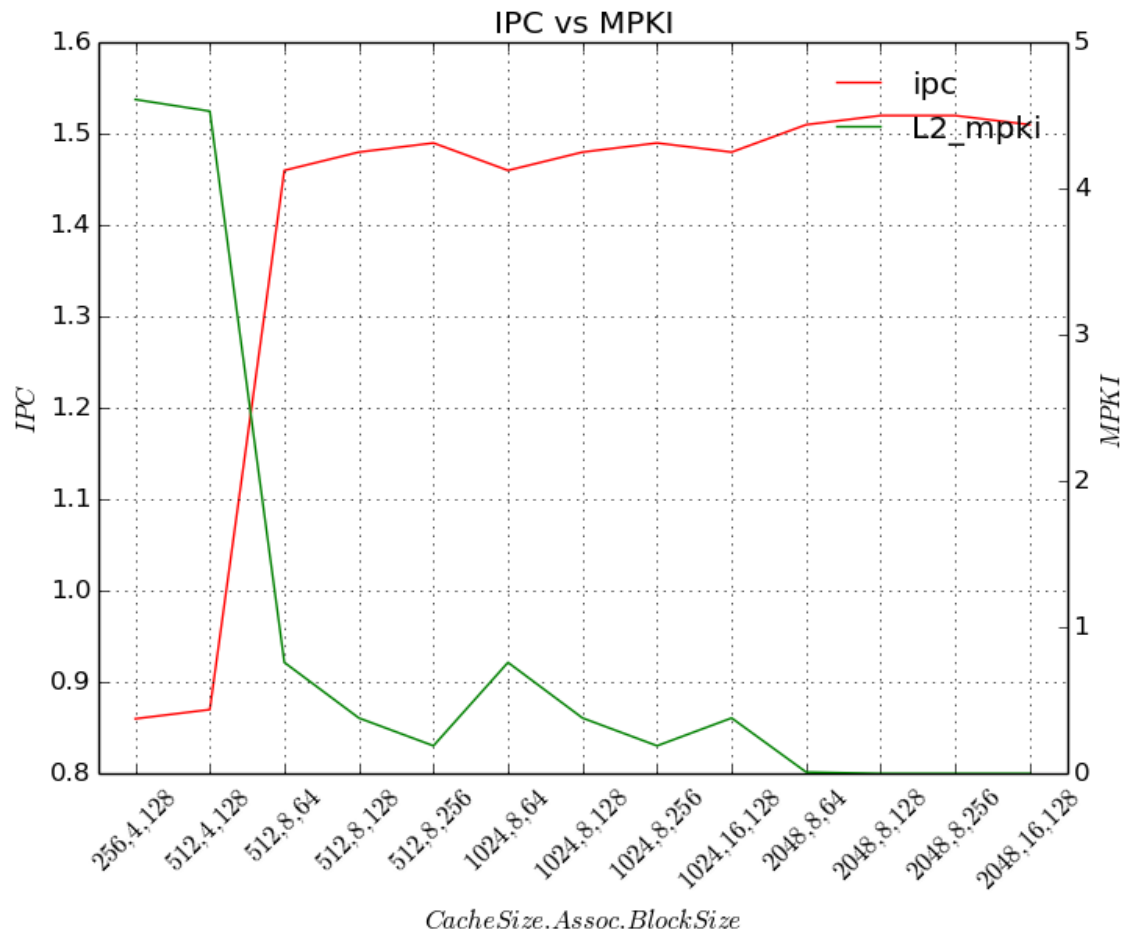


# Διαφορετικά L2 Configurations

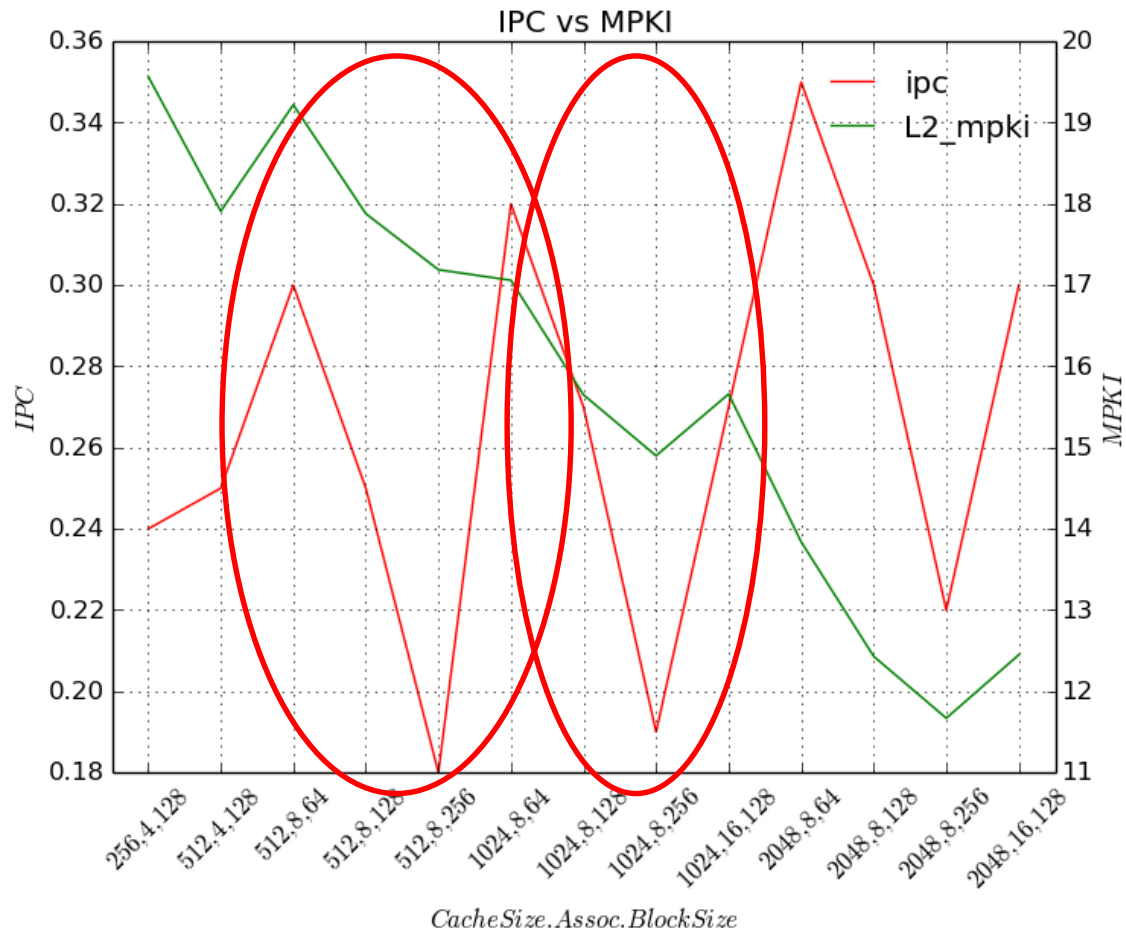
# blackscholes



# Blackscholes (large)

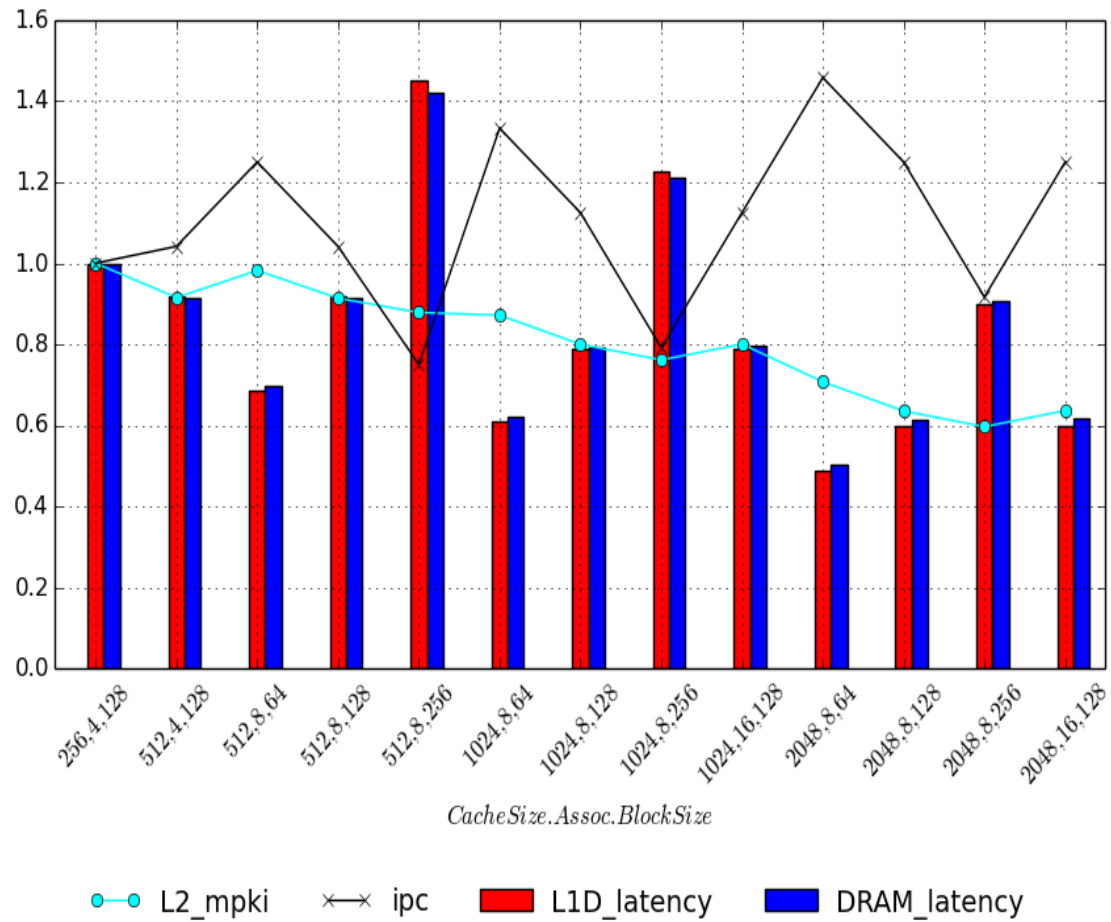


# canneal

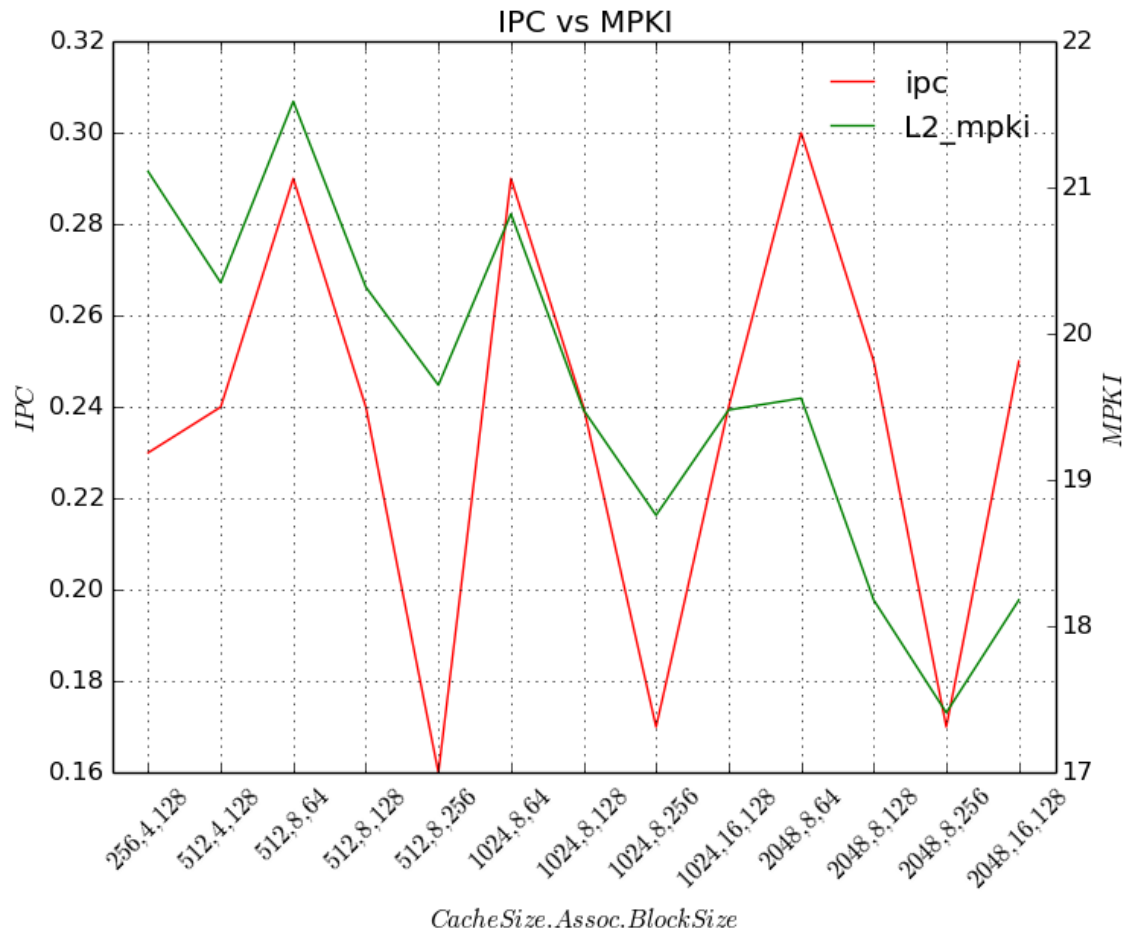




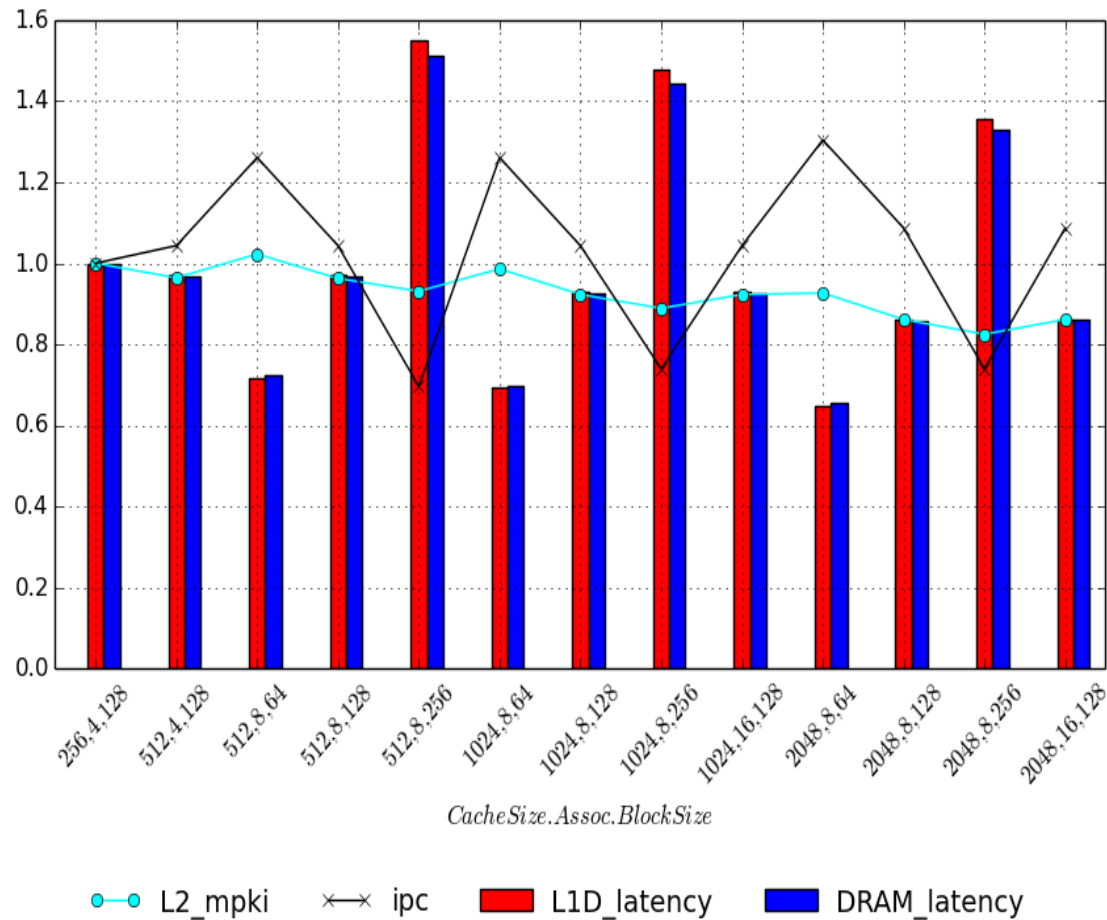
# canneal



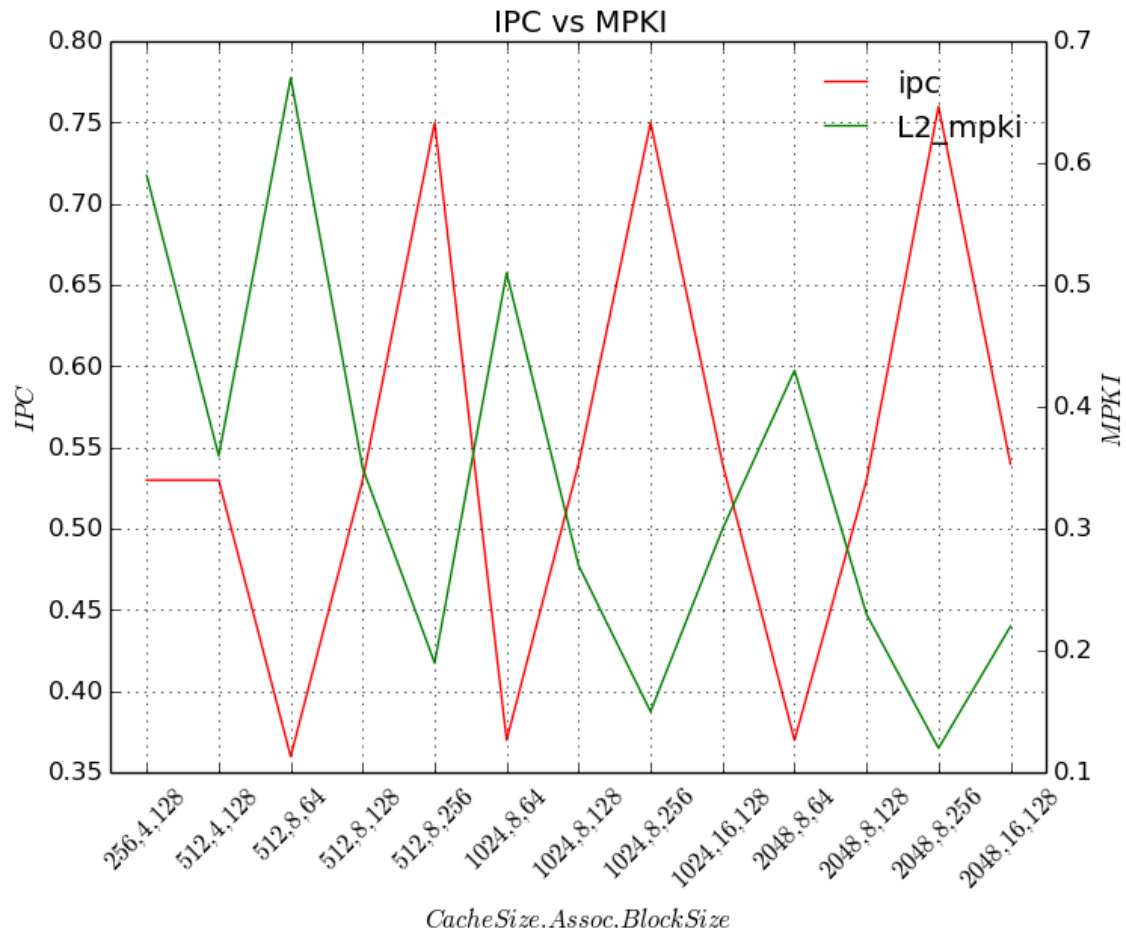
# Canneal (large)



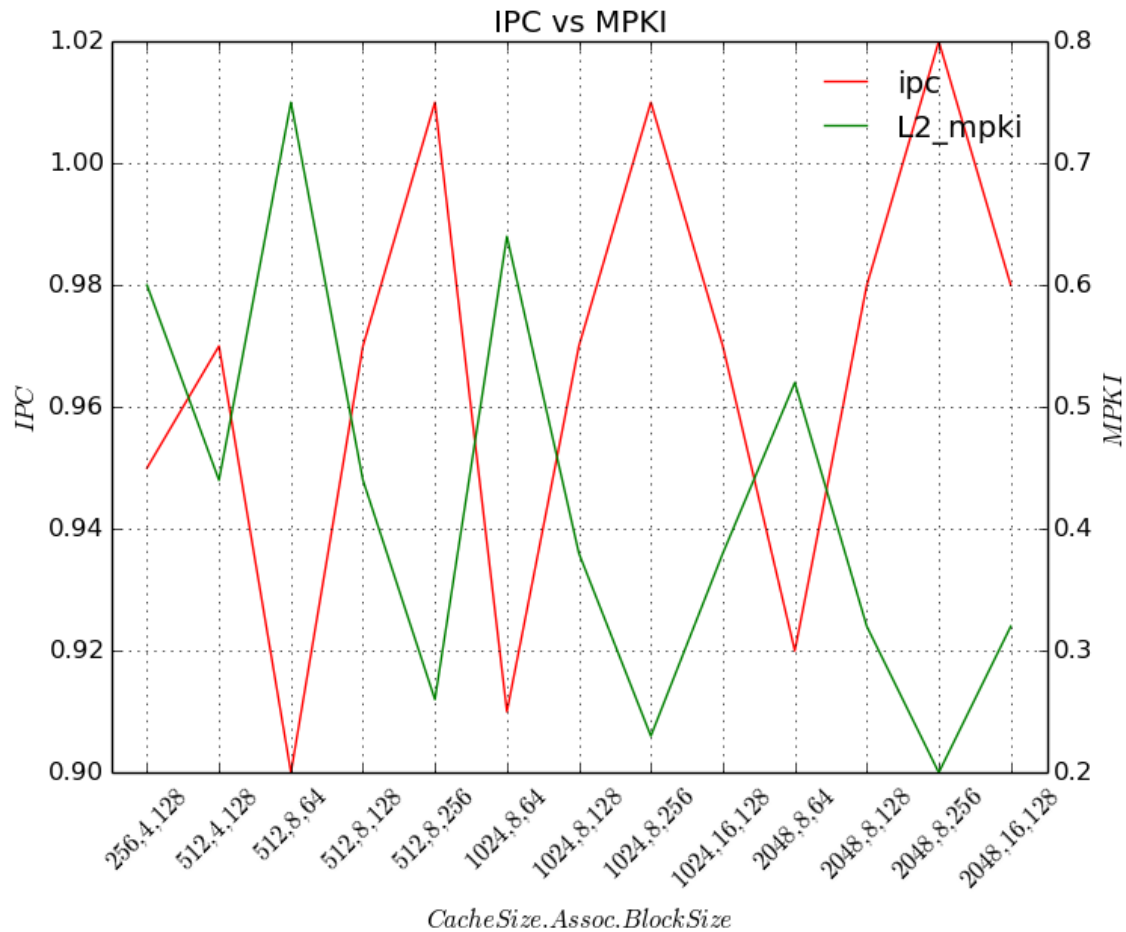
# Canneal (large)



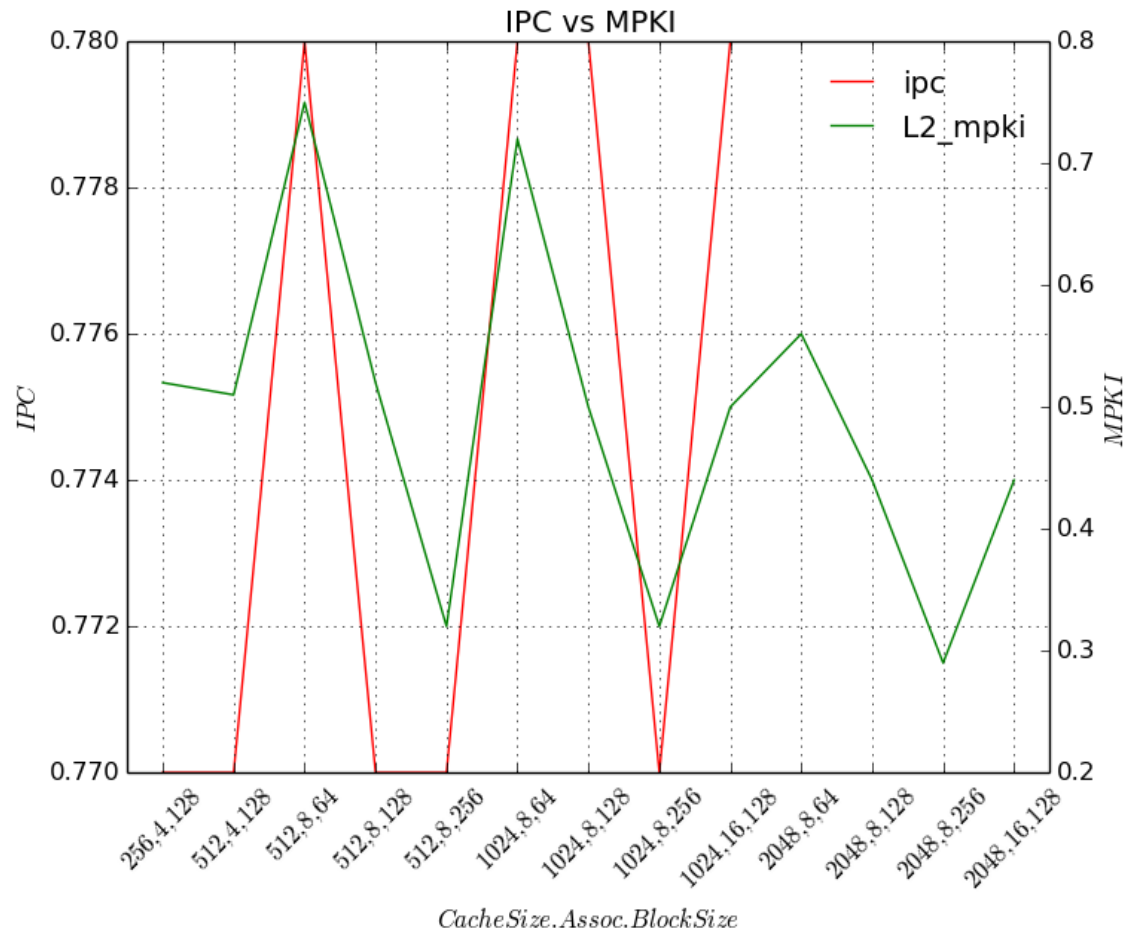
# dedup



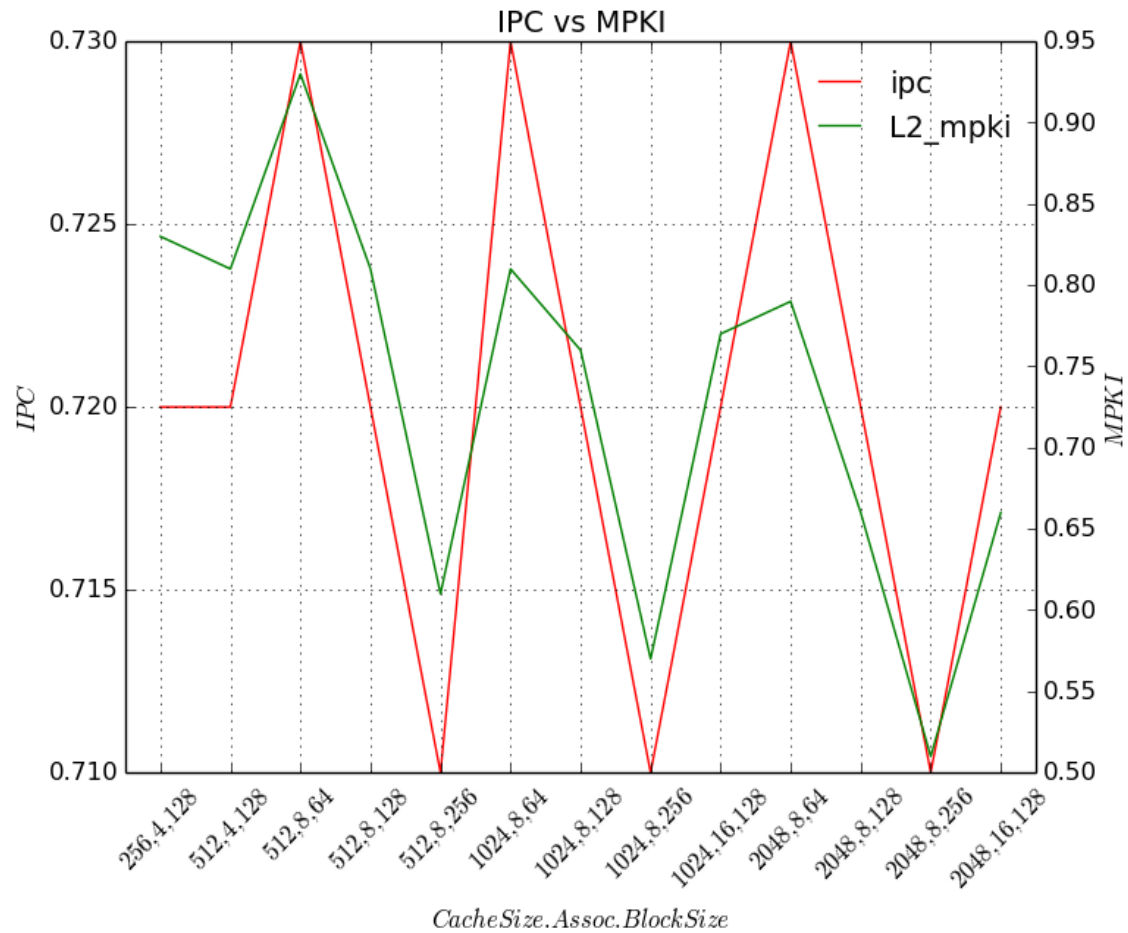
# Dedup (large)



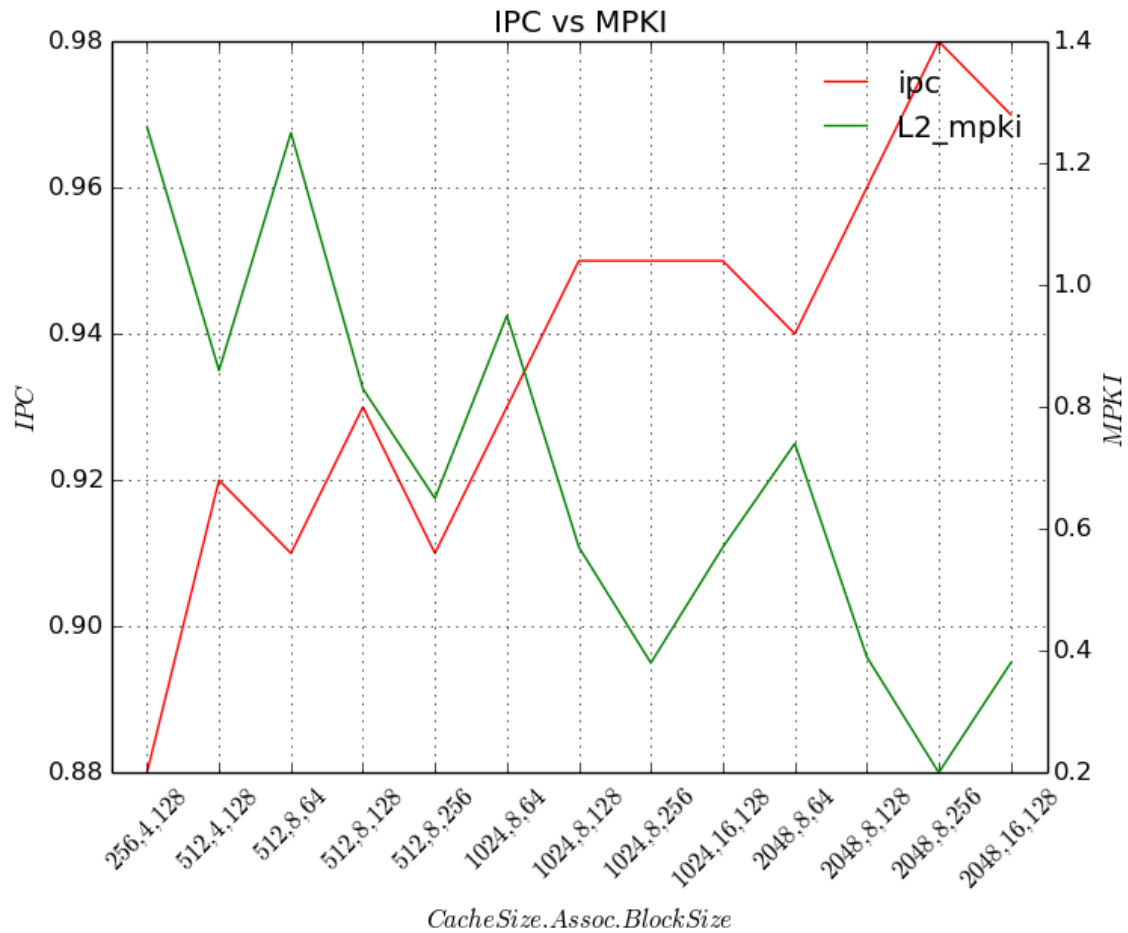
# fluidanimate



# Fluidanimate (large)

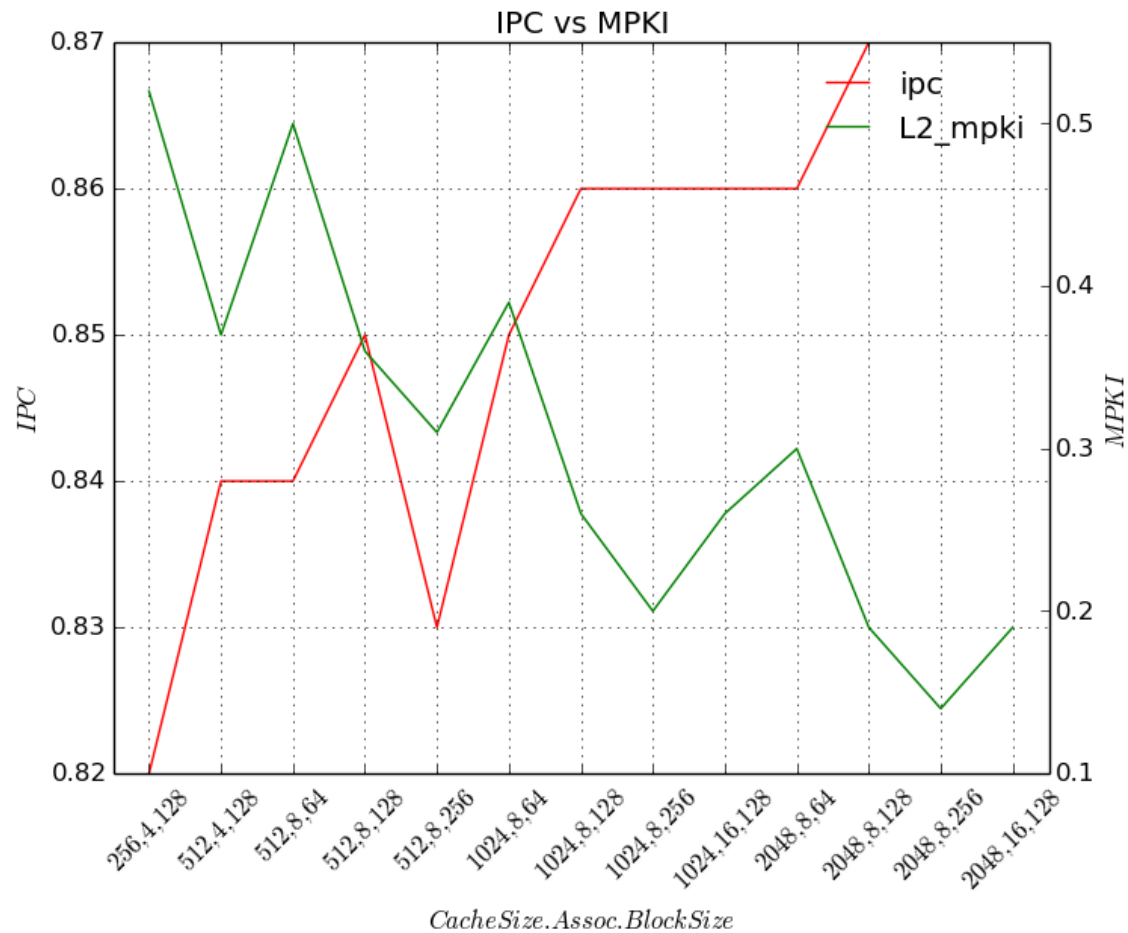


# freqmine

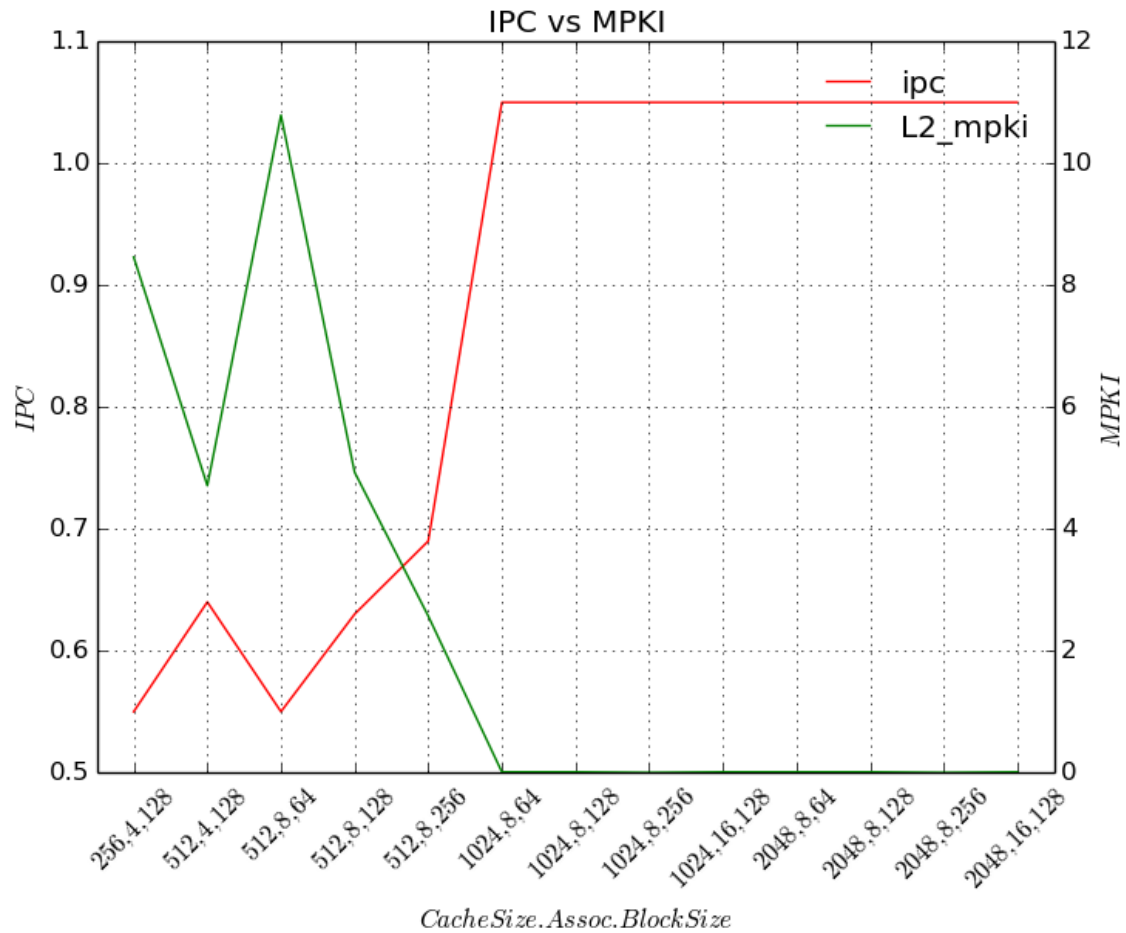




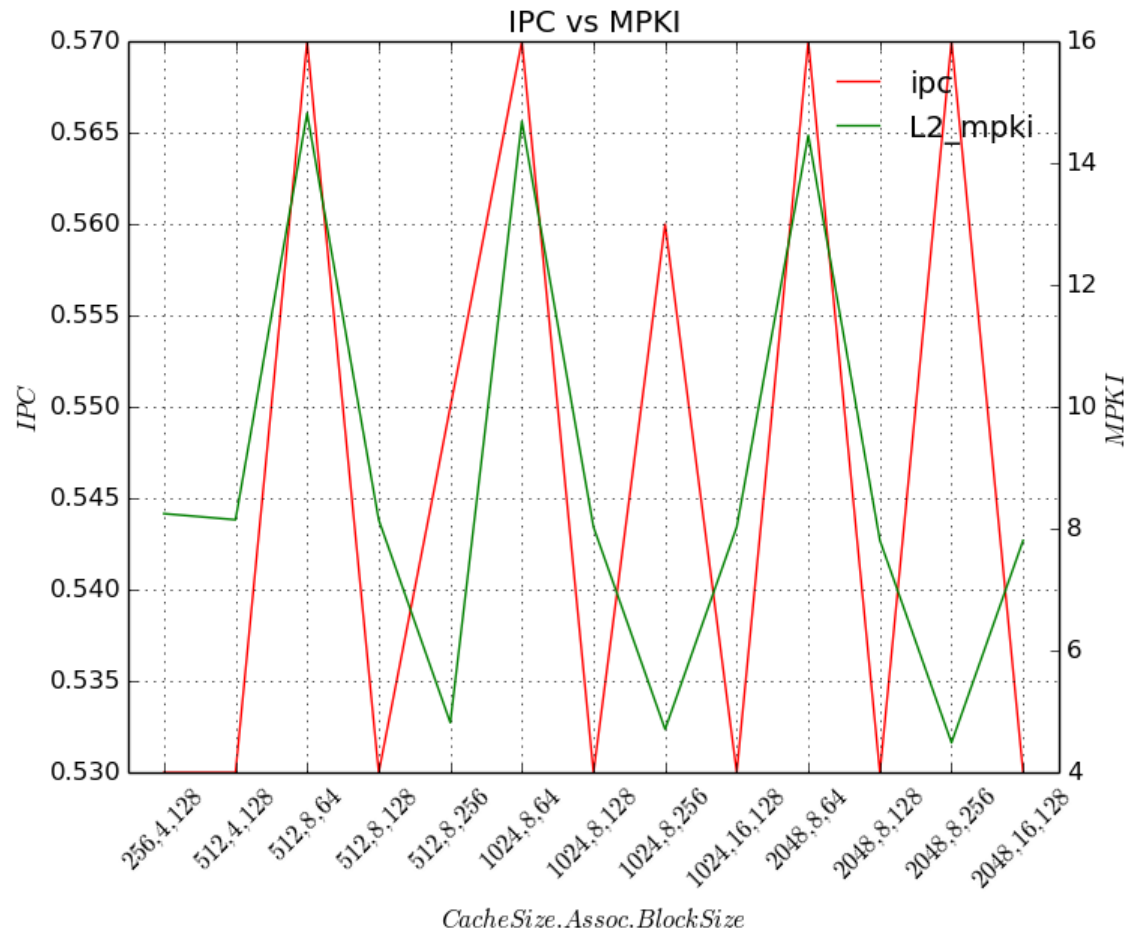
# Freqmine (large)



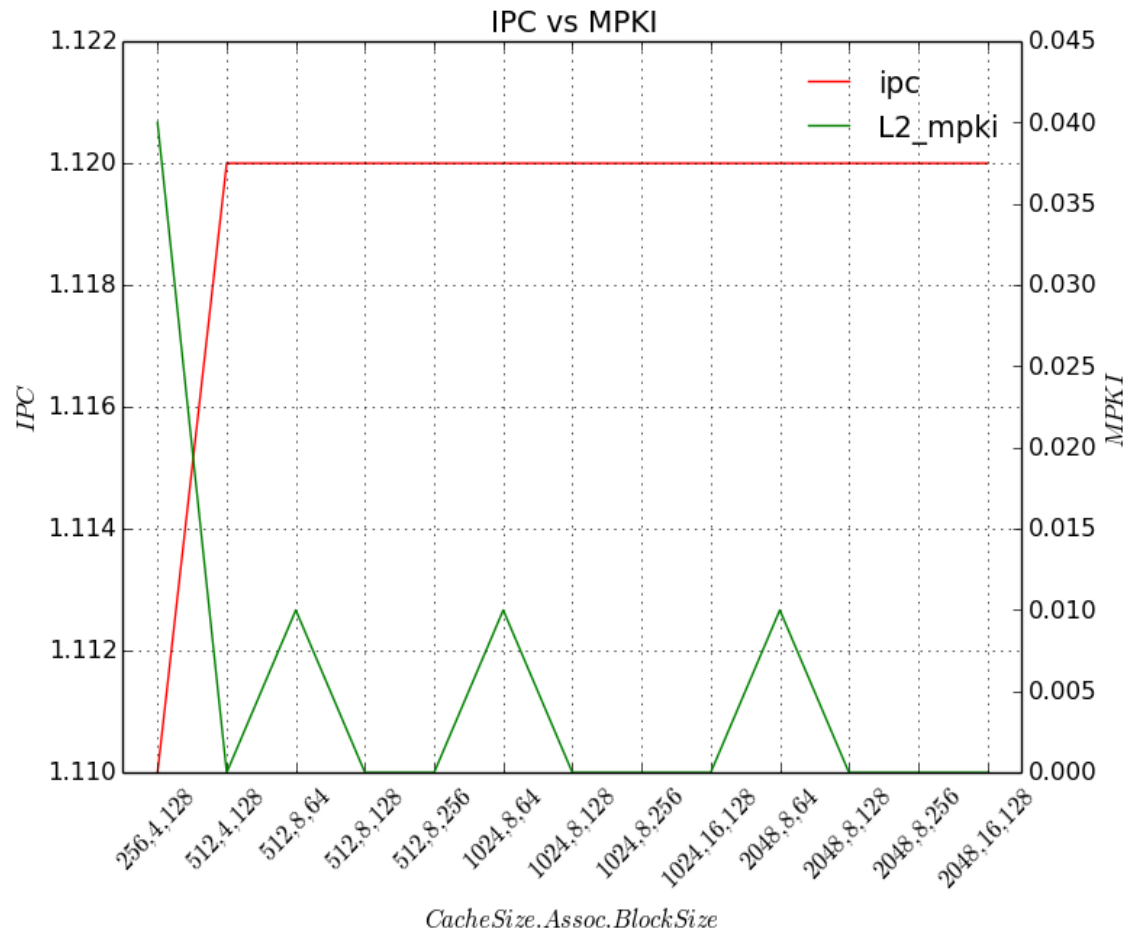
# streamcluster



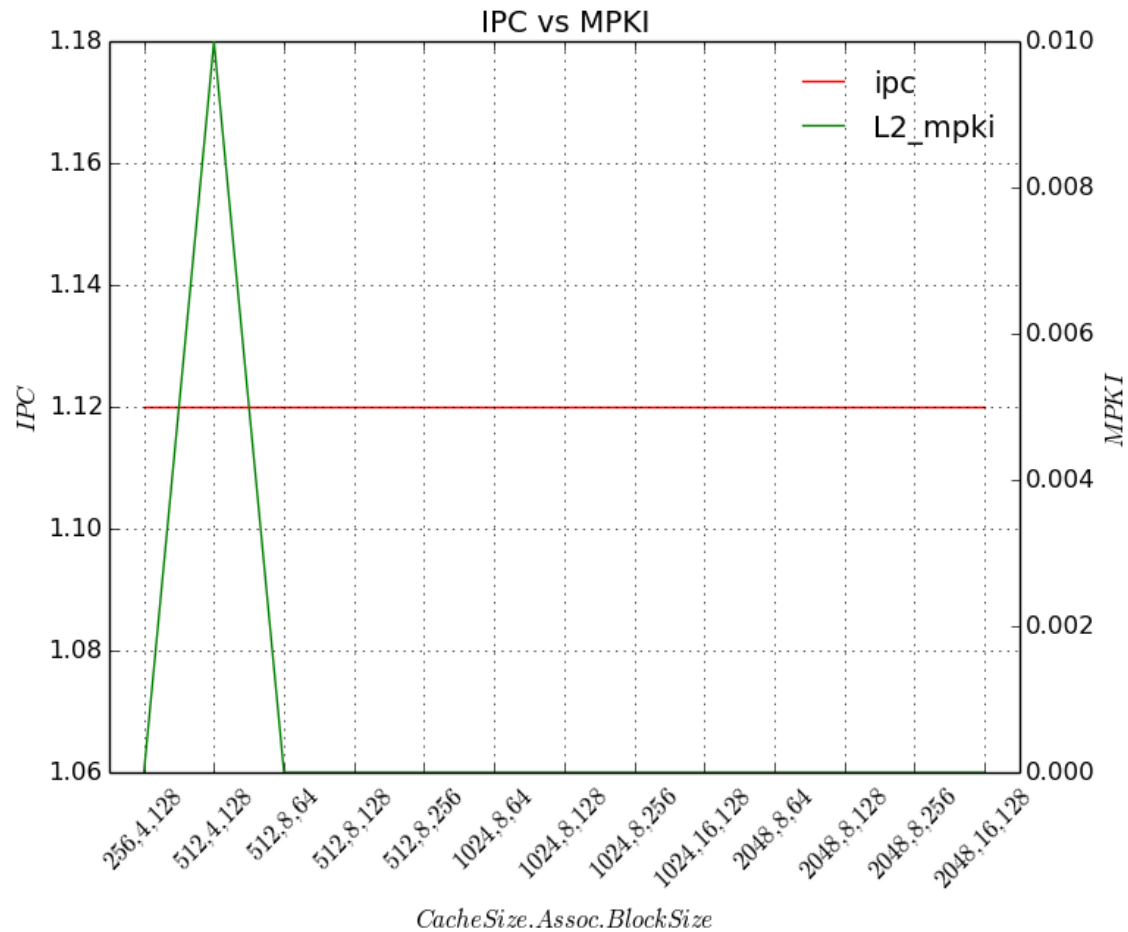
# Streamcluster (large)



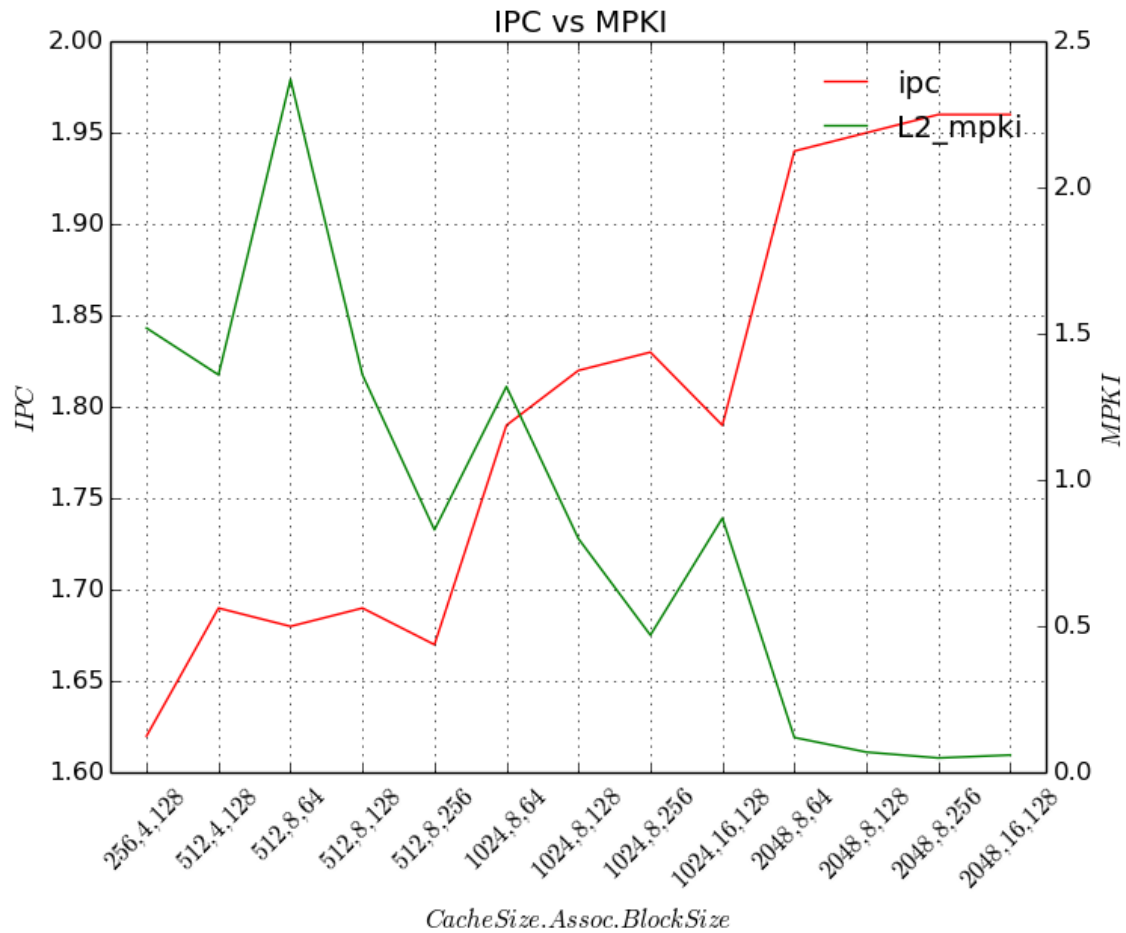
# swaptions



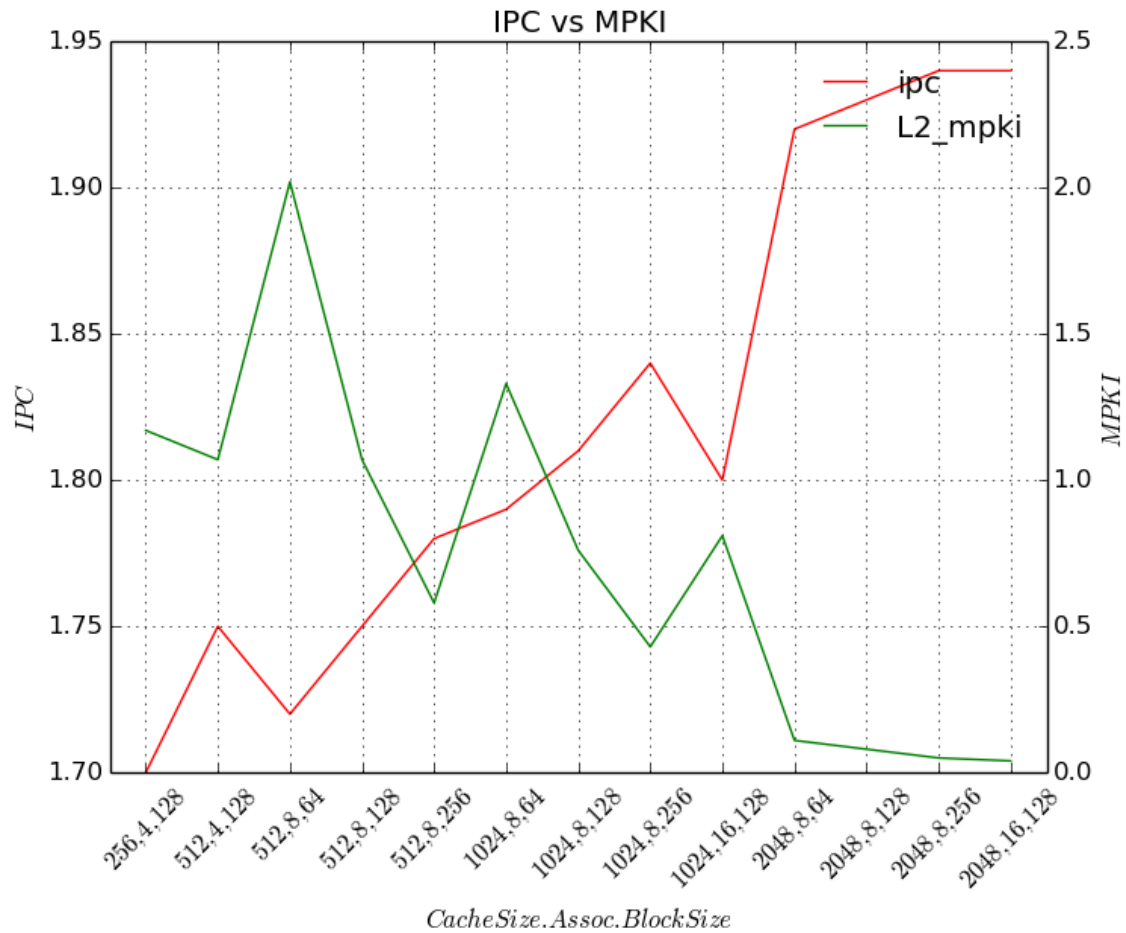
# Swaptions (large)



# vips



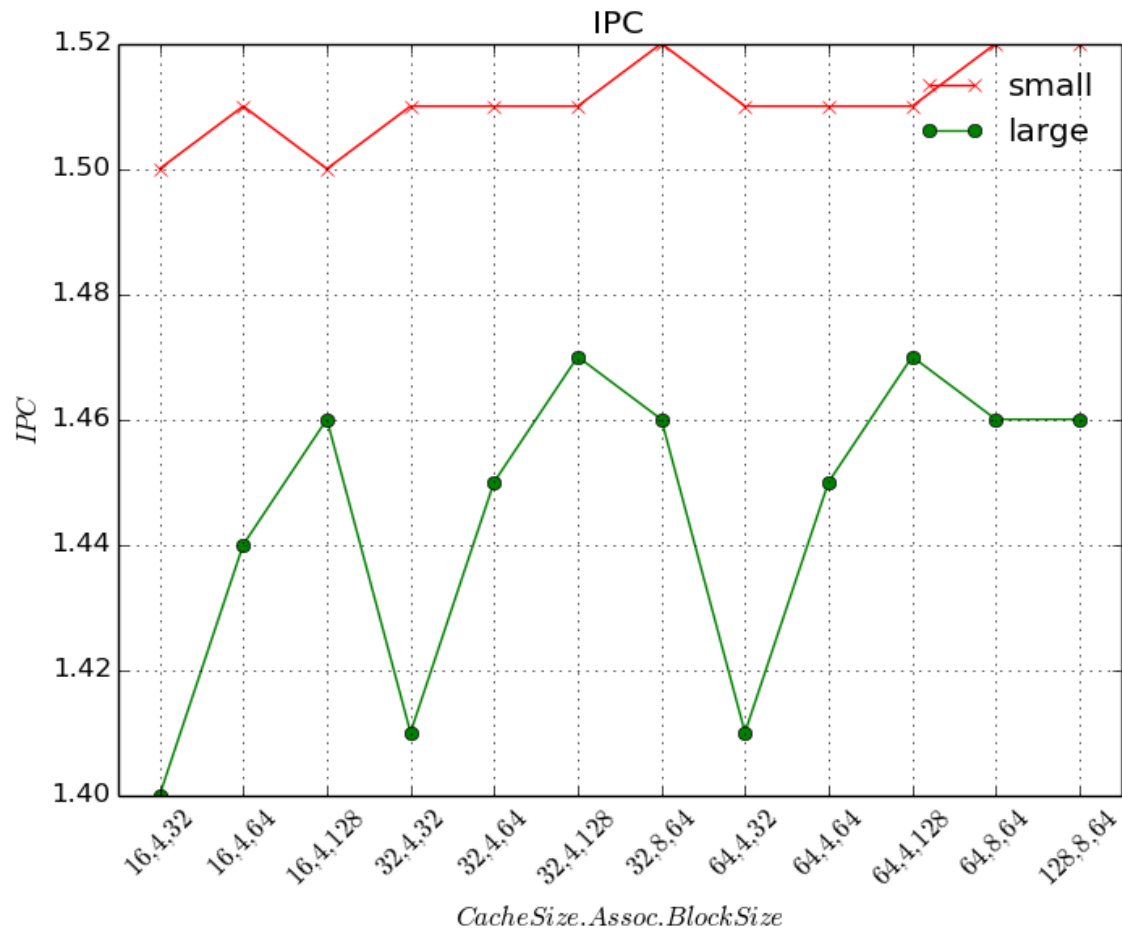
# Vips (large)



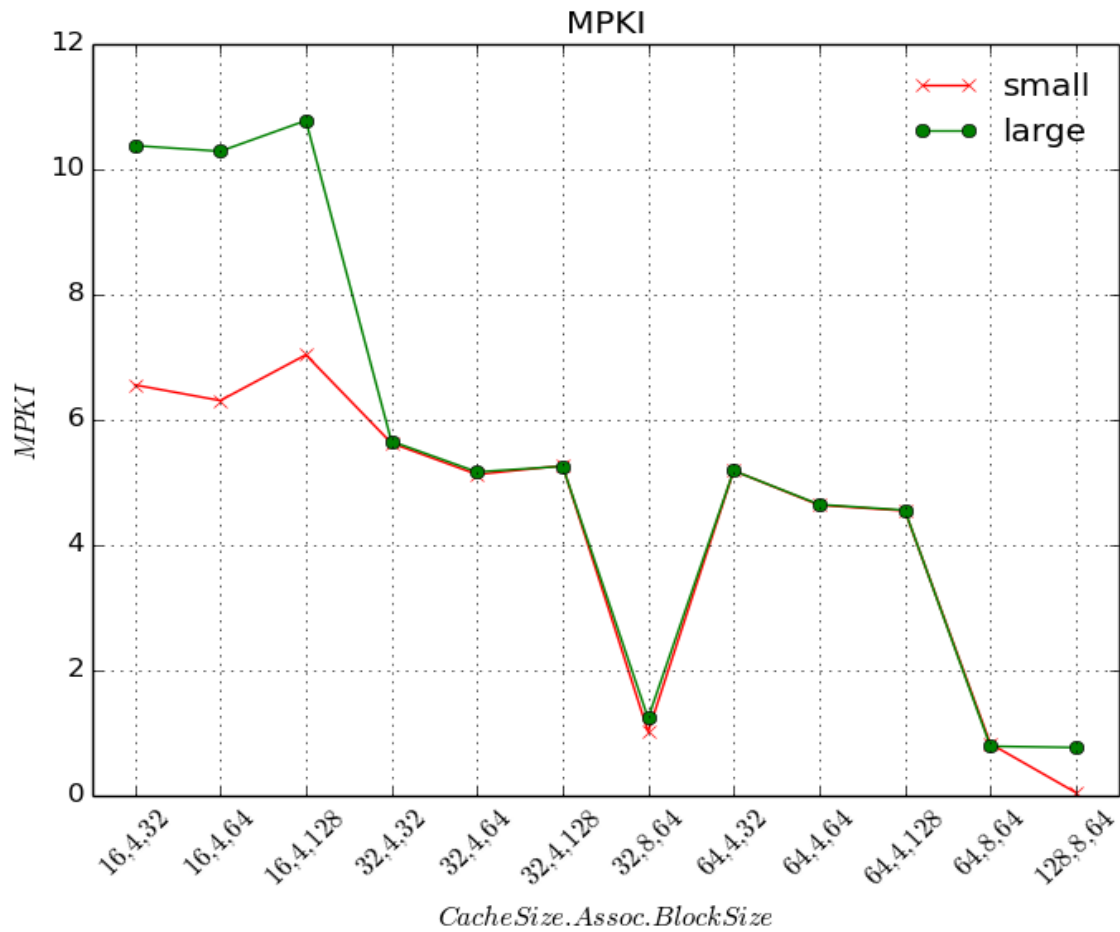
# Large input vs. small



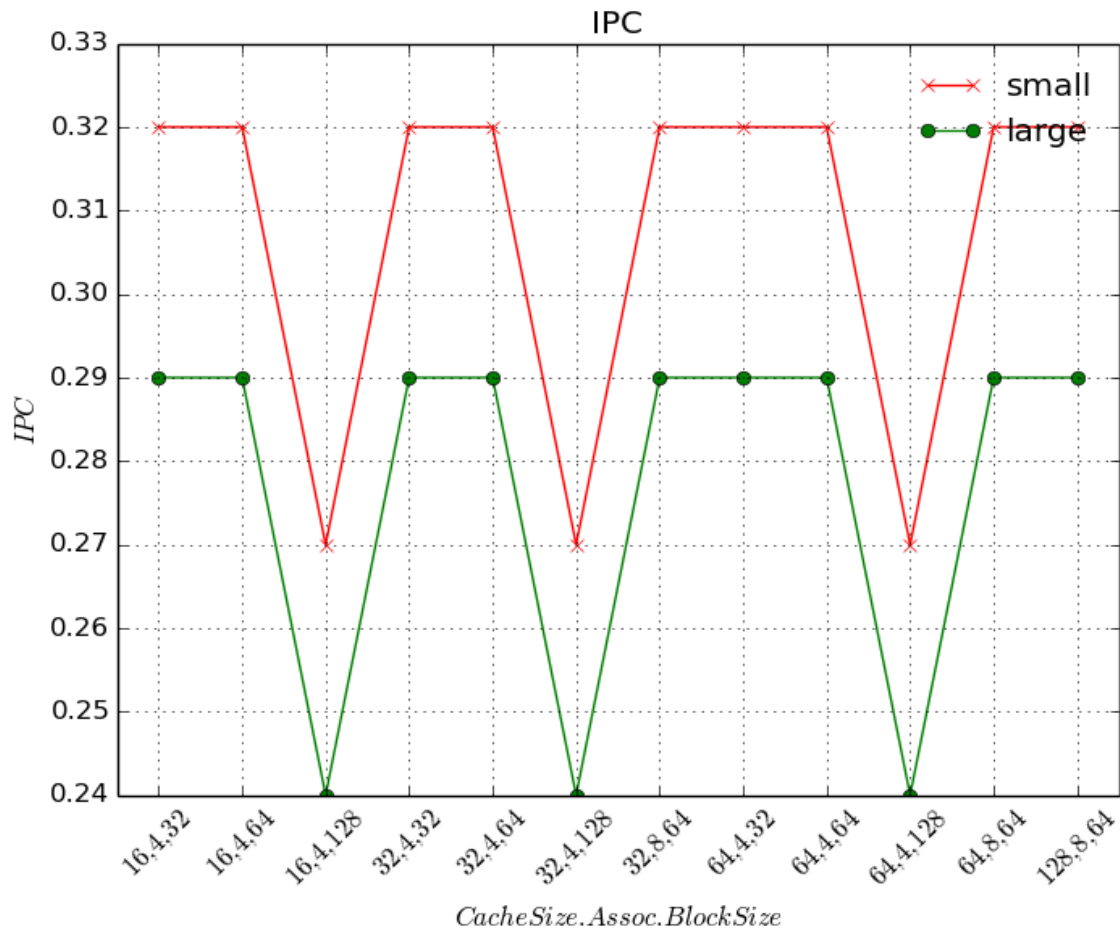
# blackscholes



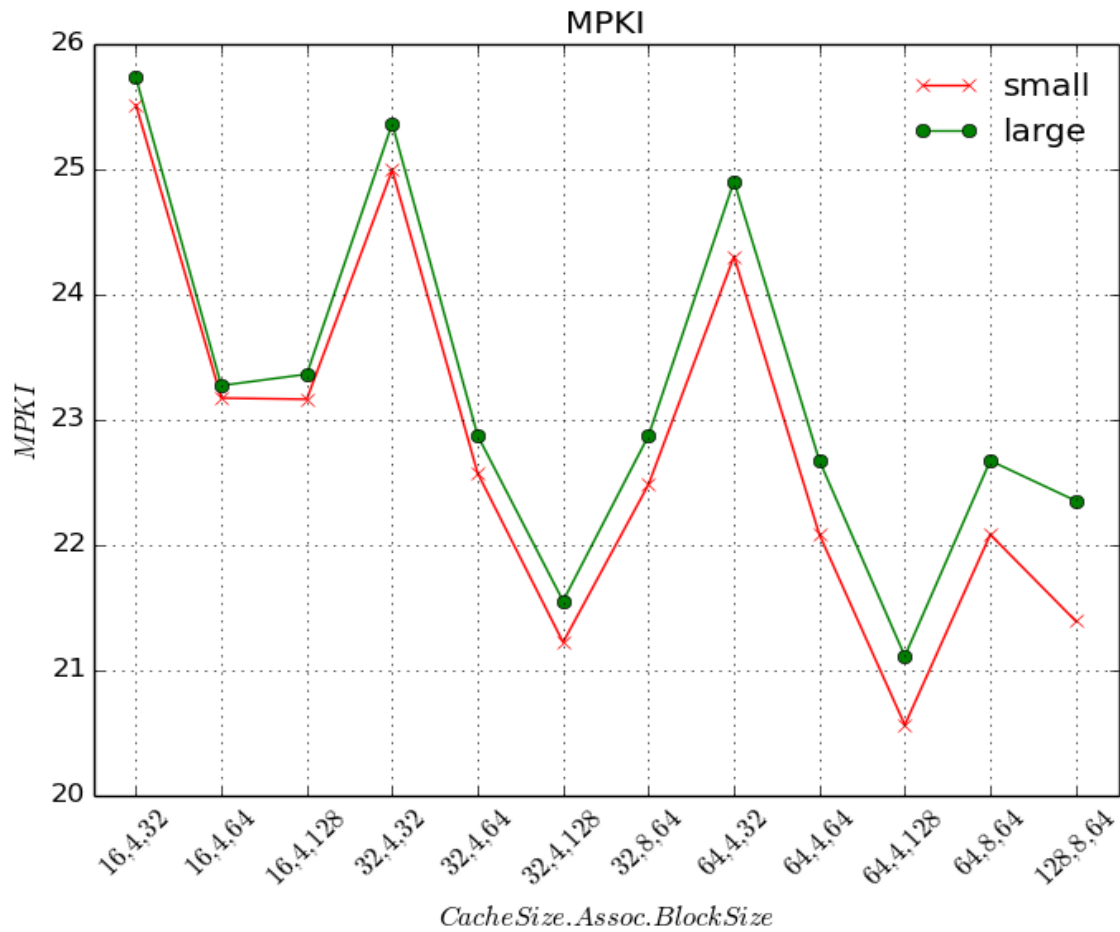
# blackscholes



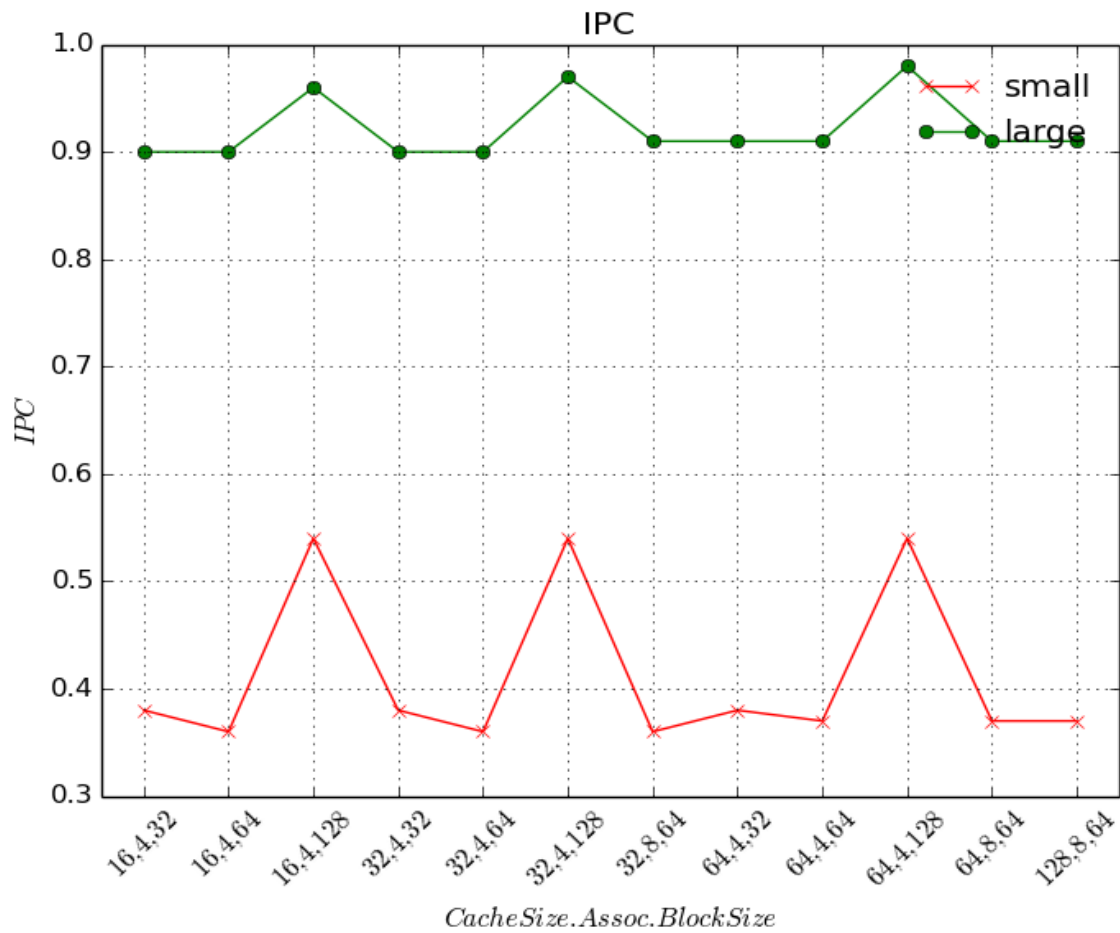
# canneal



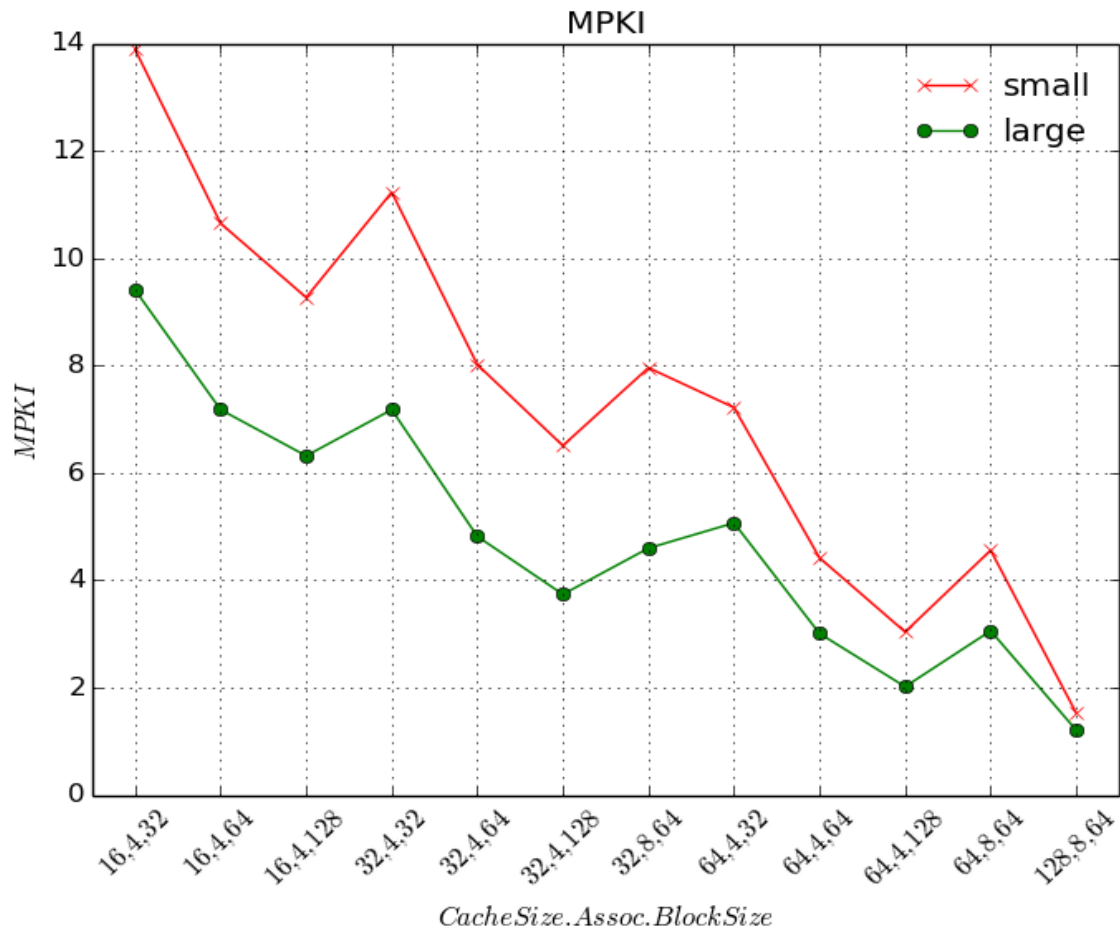
# canneal



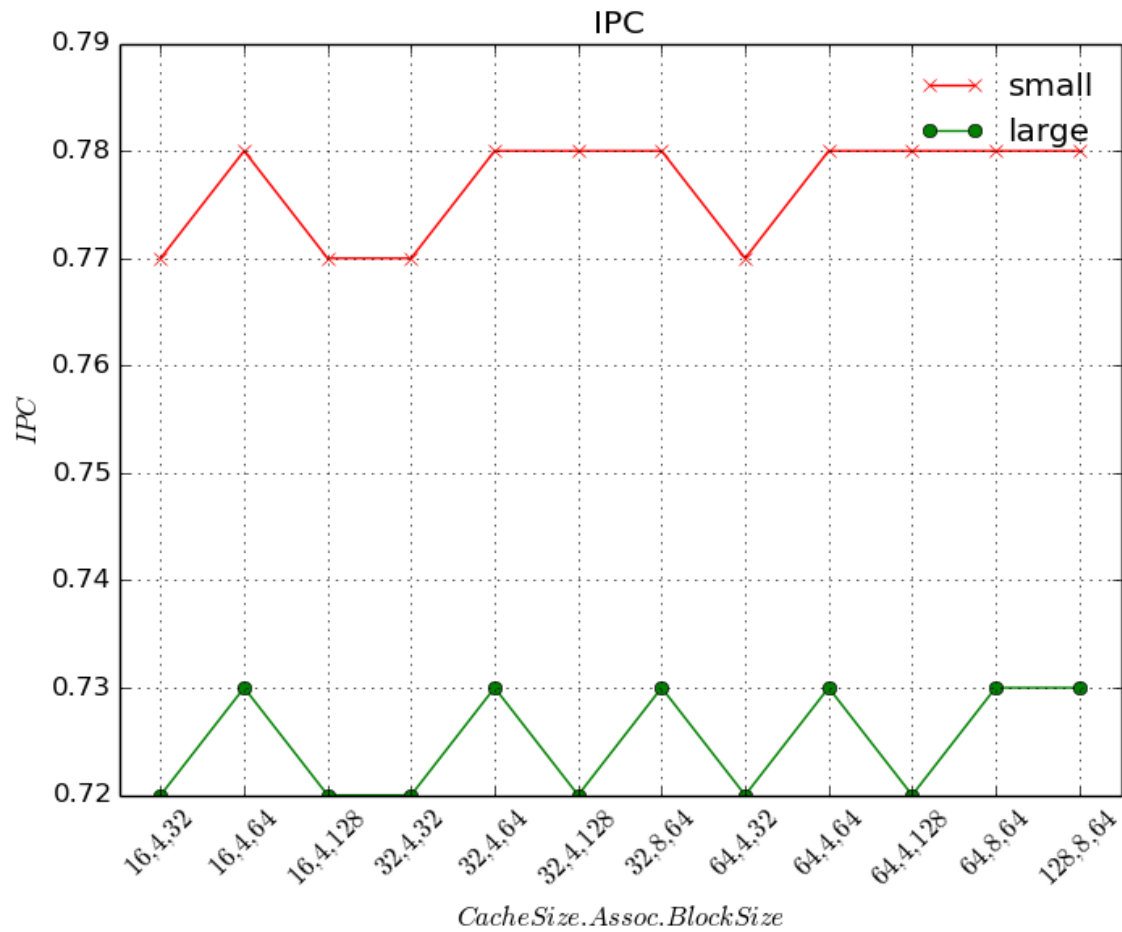
# dedup



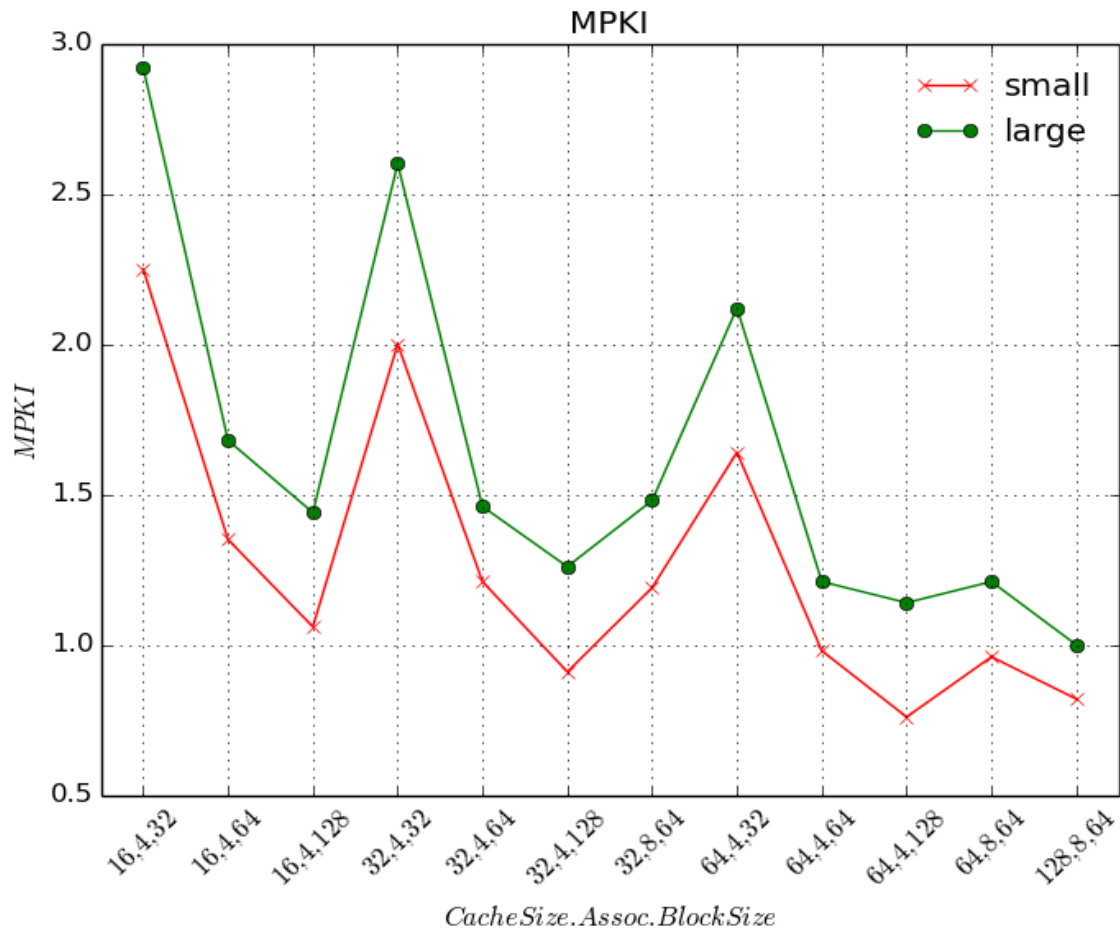
# dedup



# fluidanimate

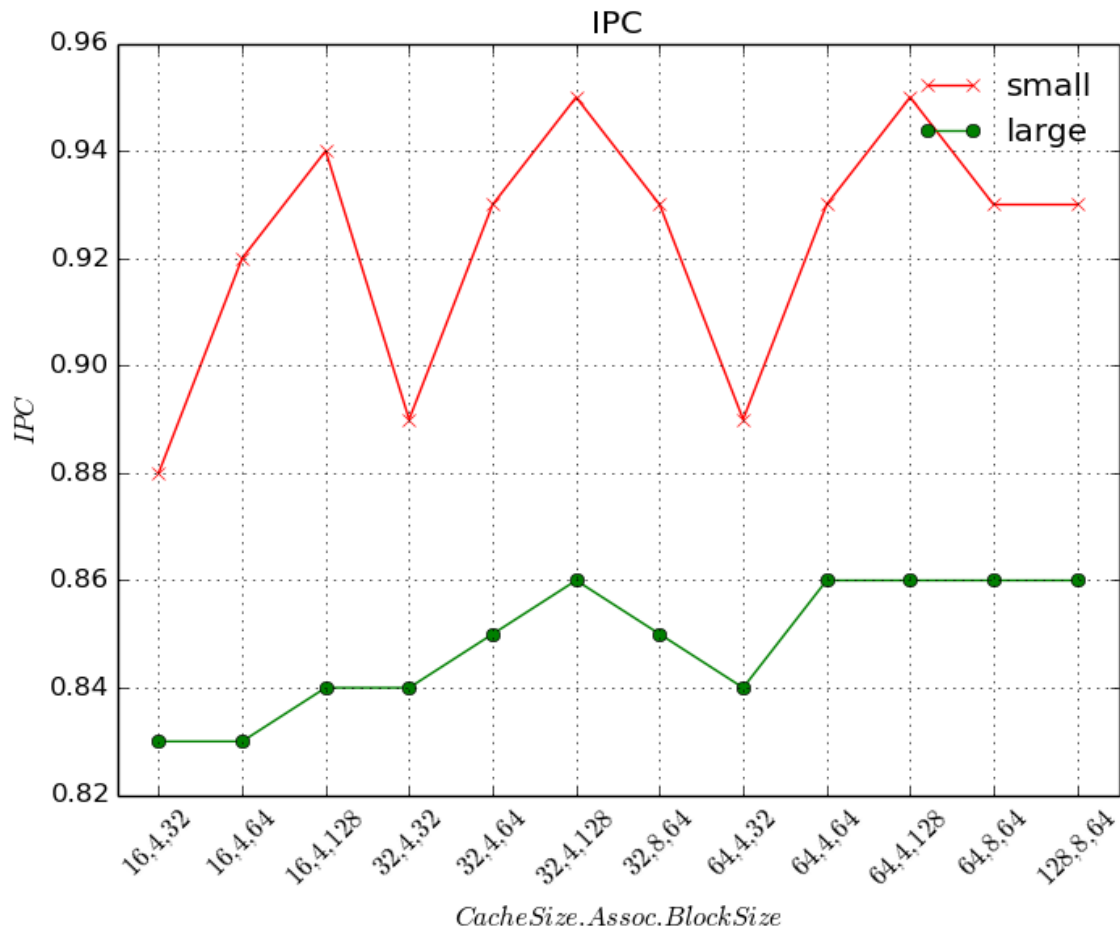


# fluidanimate

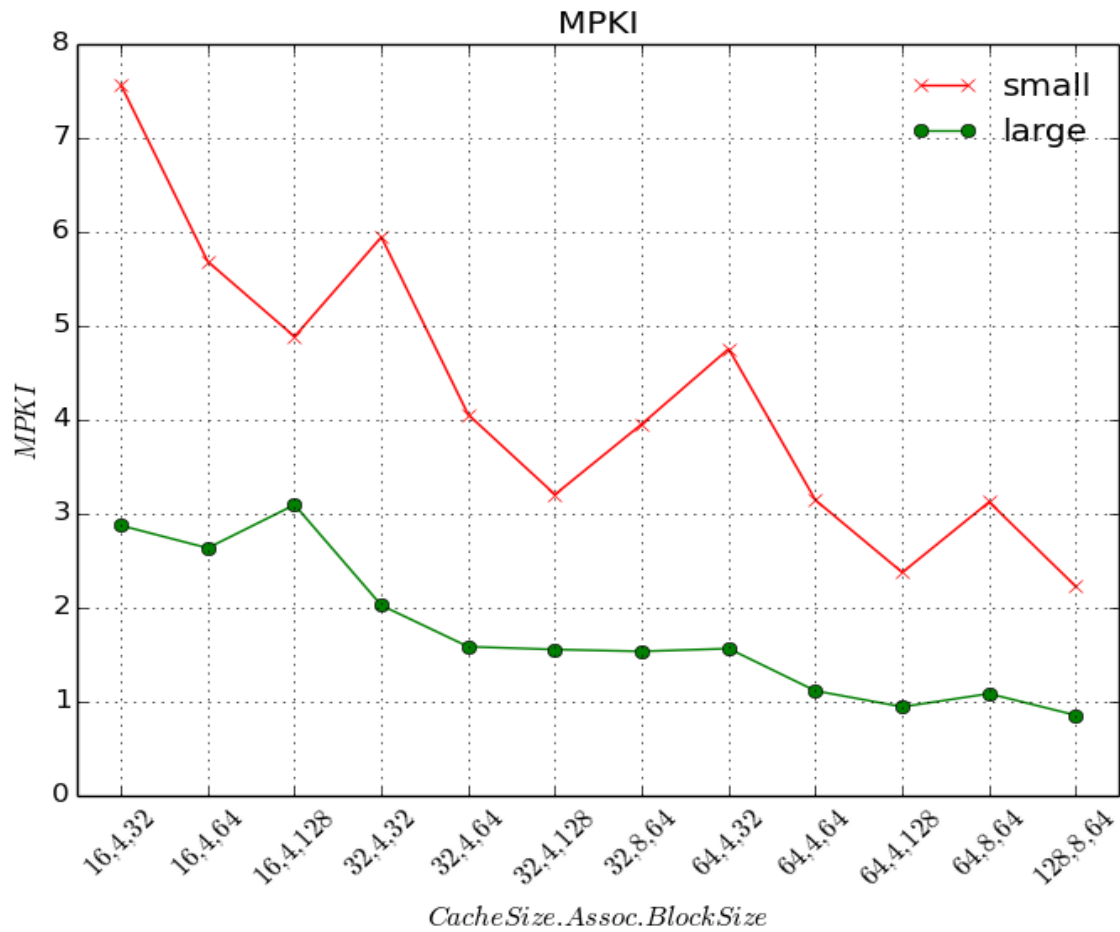




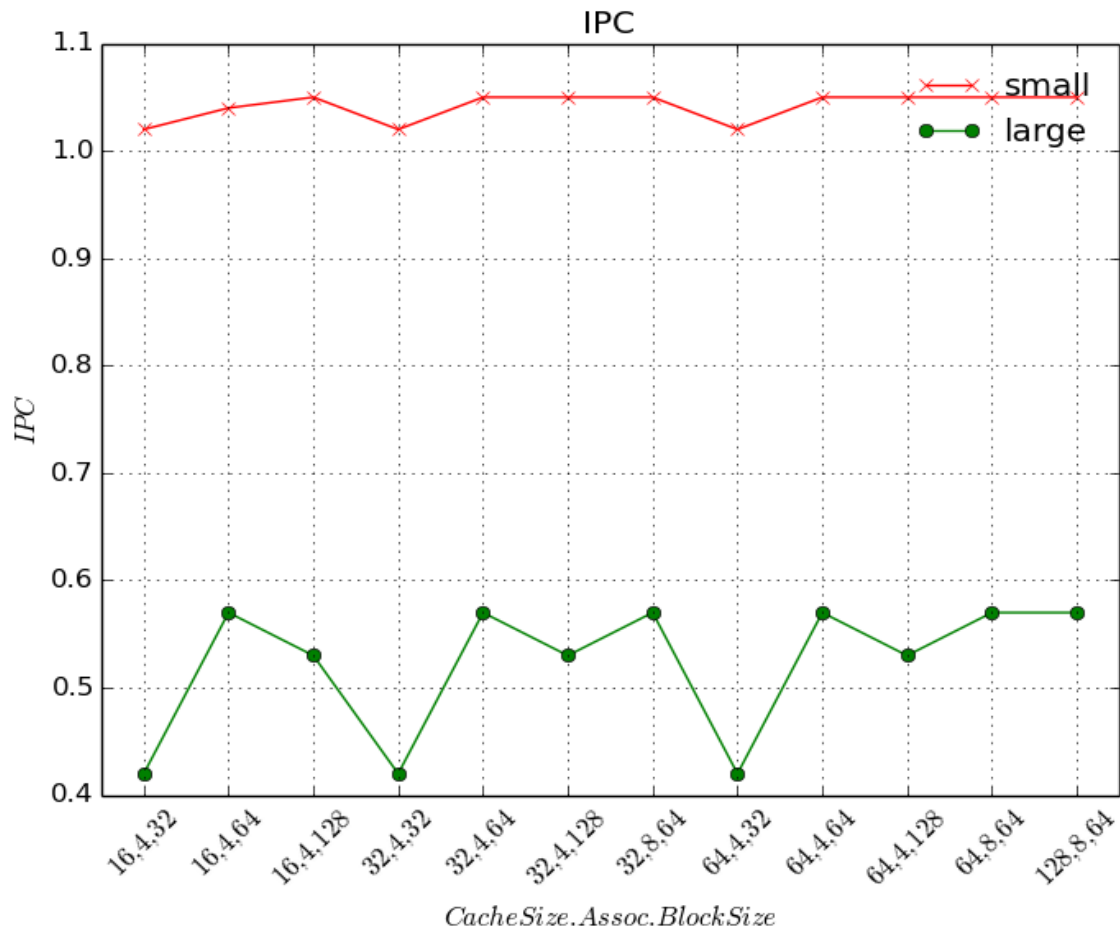
# freqmine



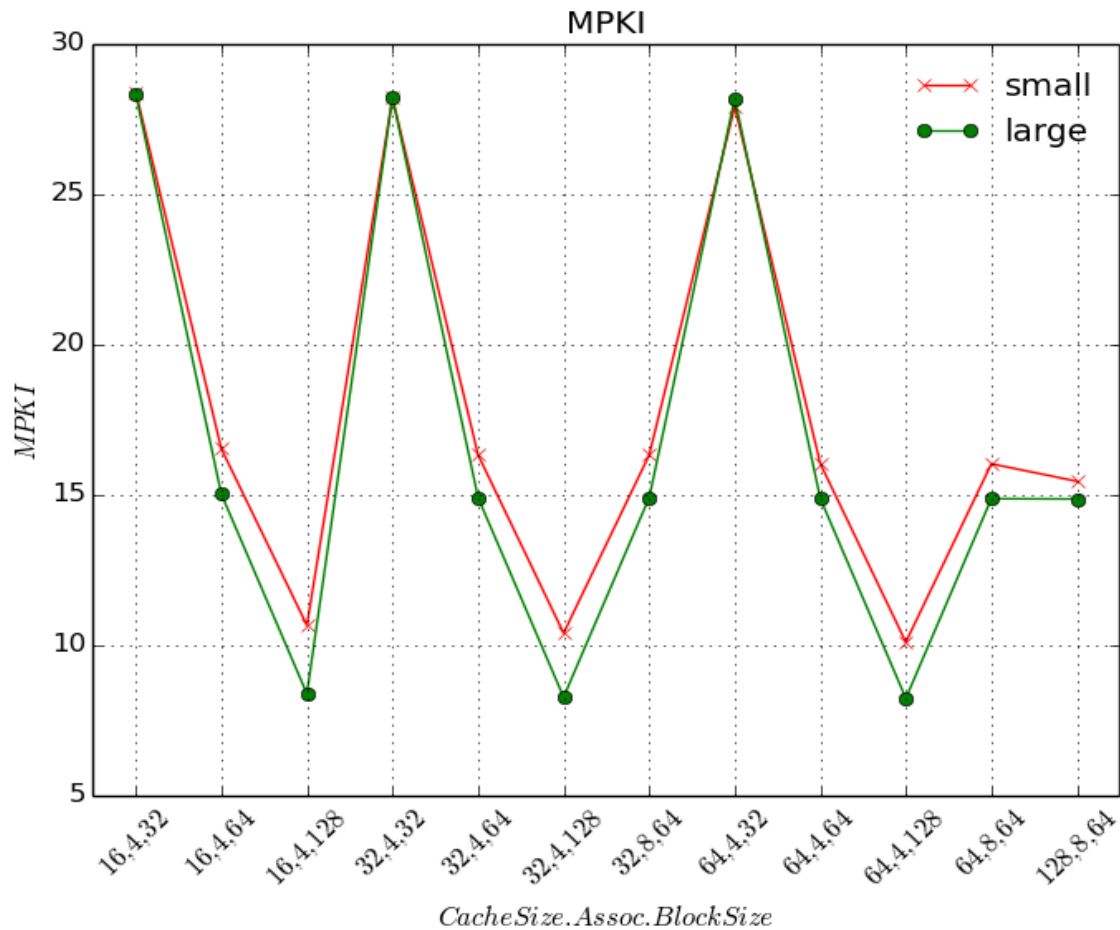
# freqmine



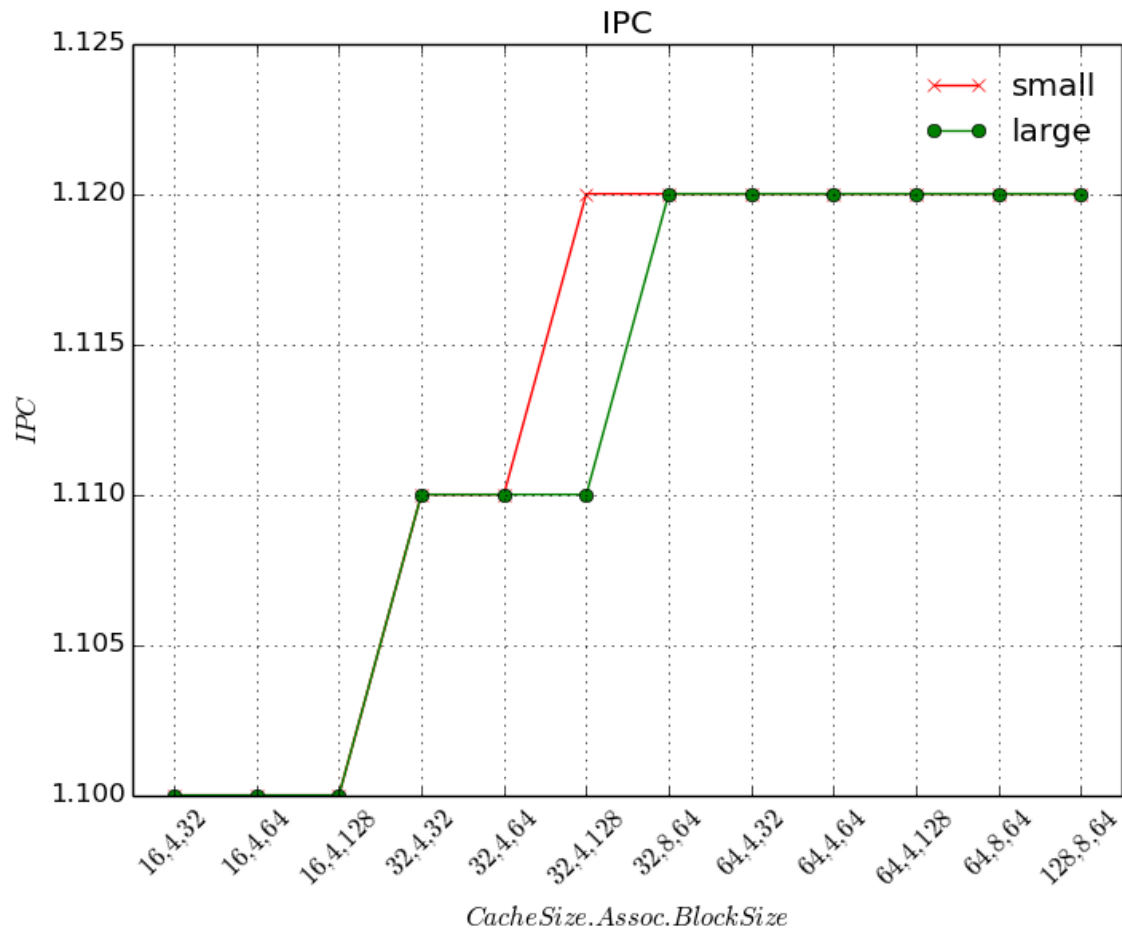
# streamcluster



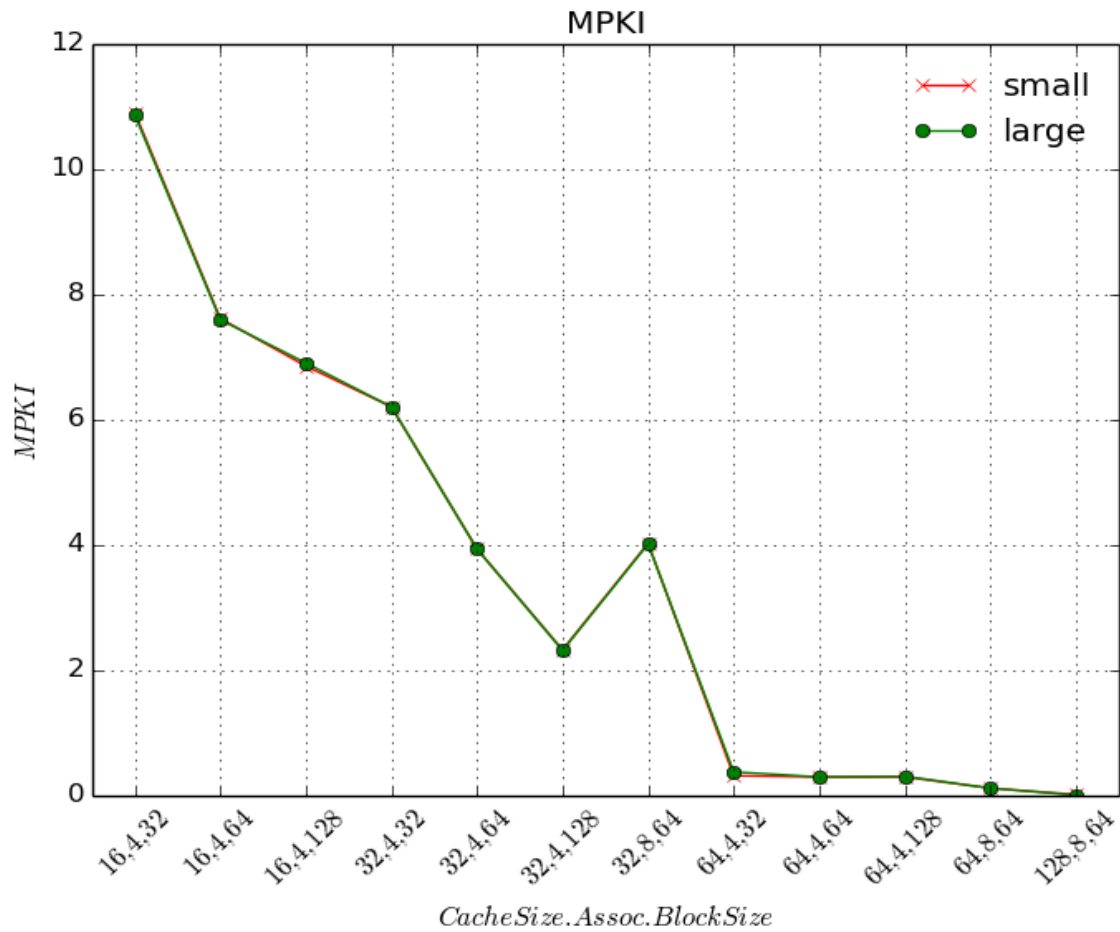
# streamcluster



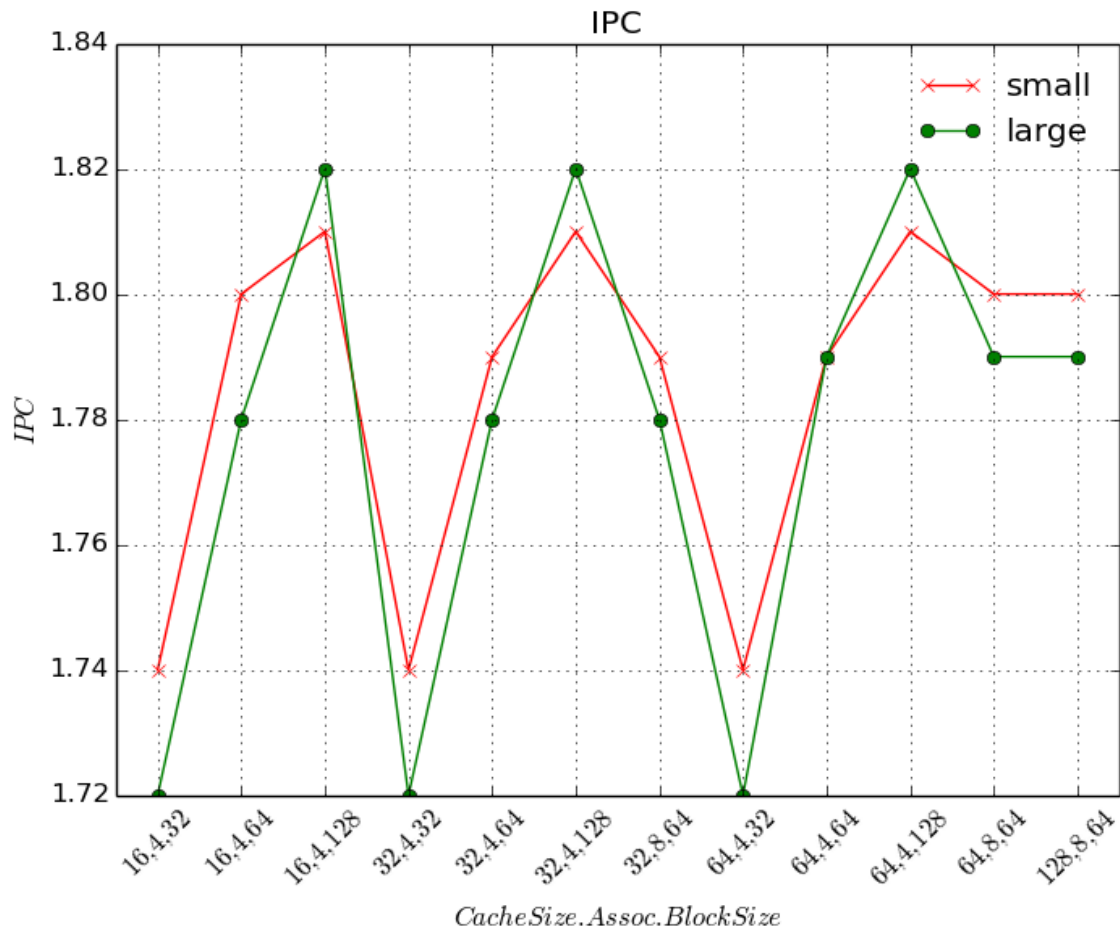
# swaptions



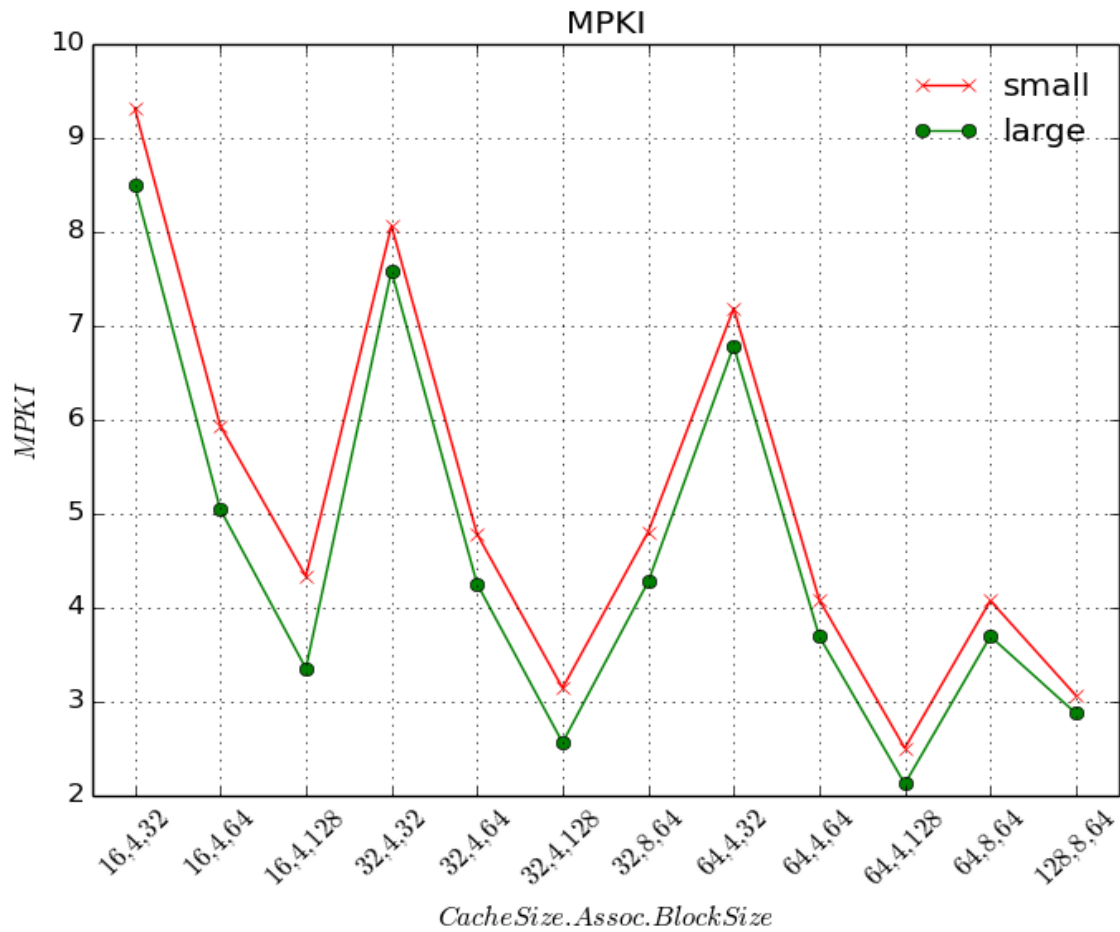
# swaptions



# vips

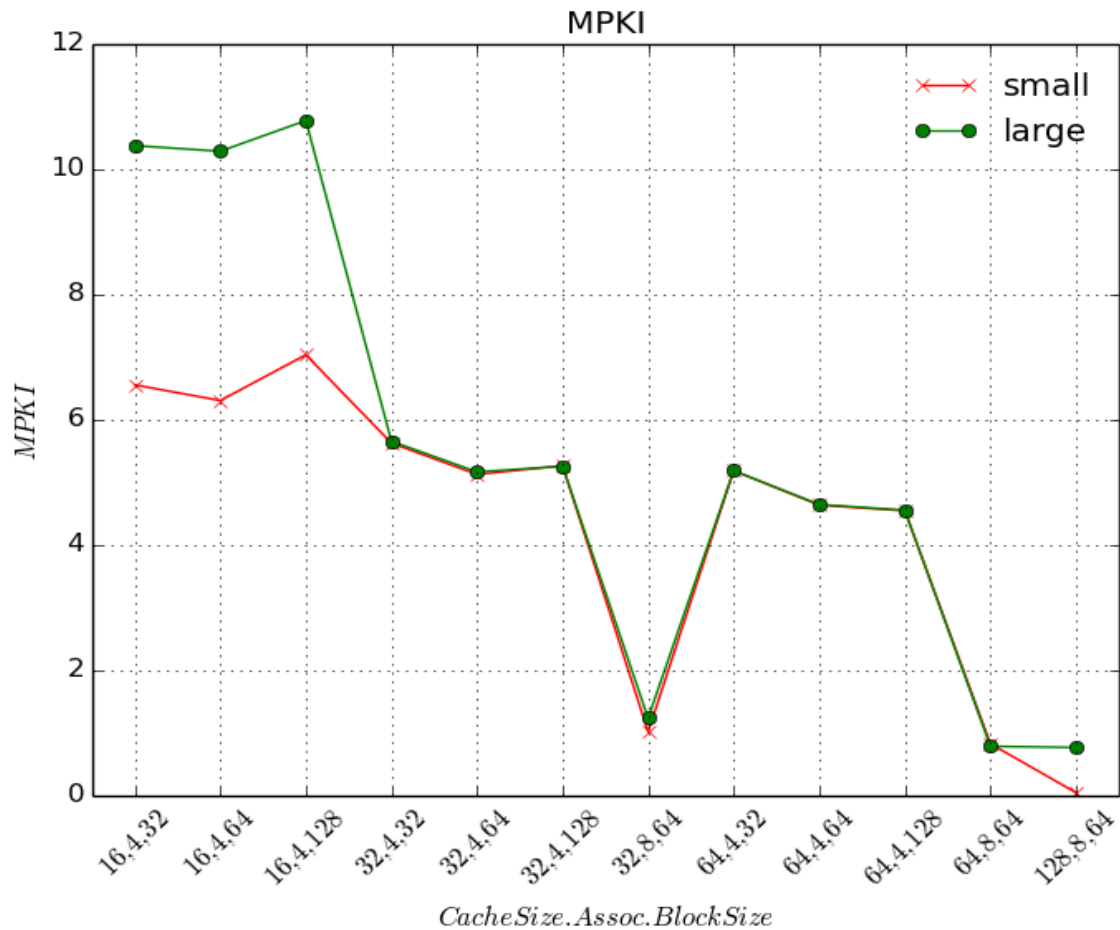


# vips





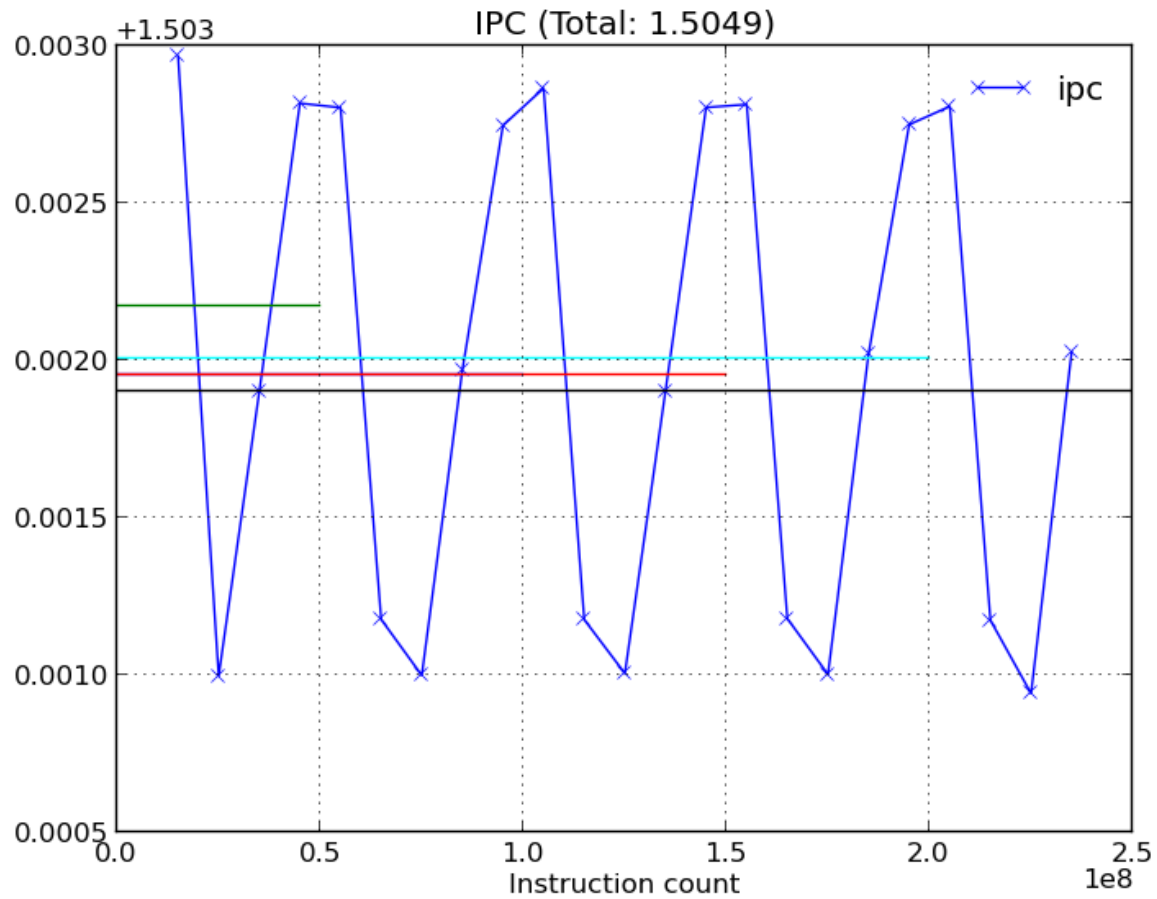
# blackscholes



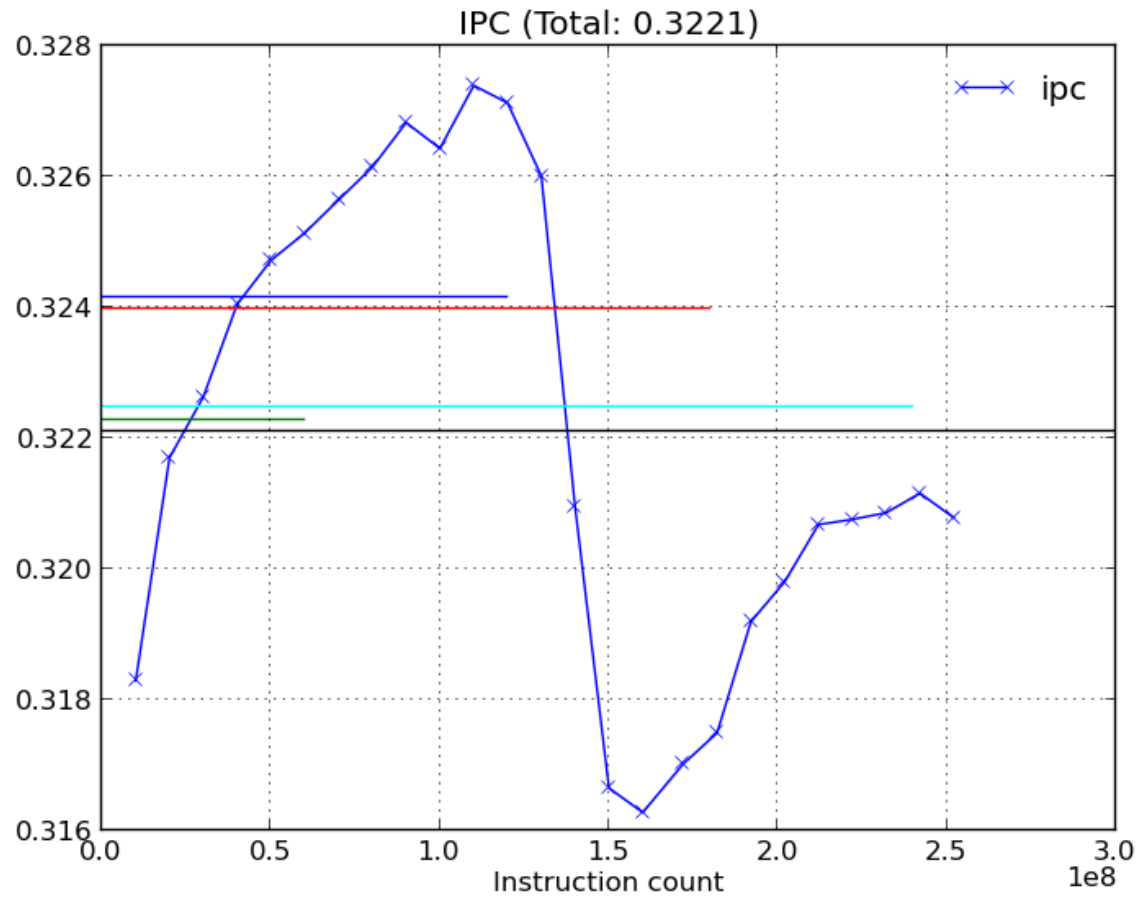
# Εξέλιξη στο χρόνο

L1 cache configuration (16\_4\_32)

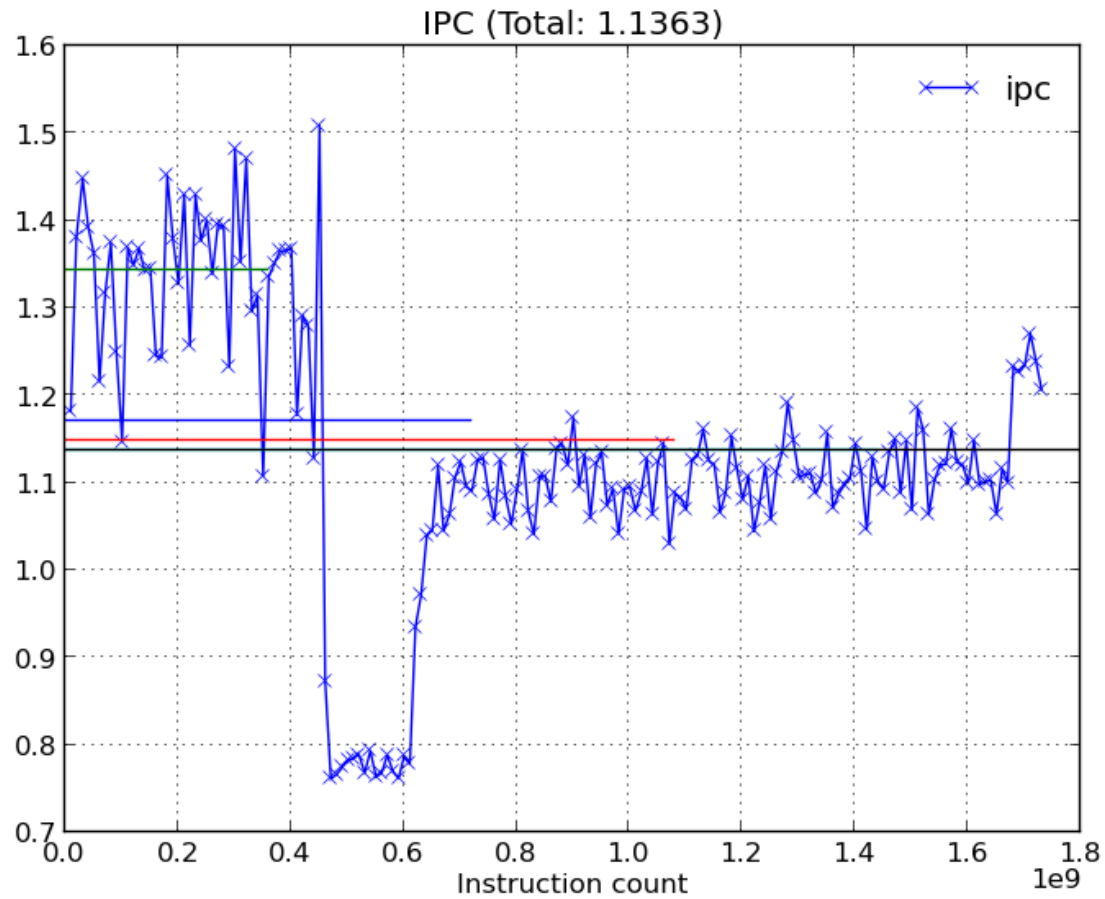
# blackscholes



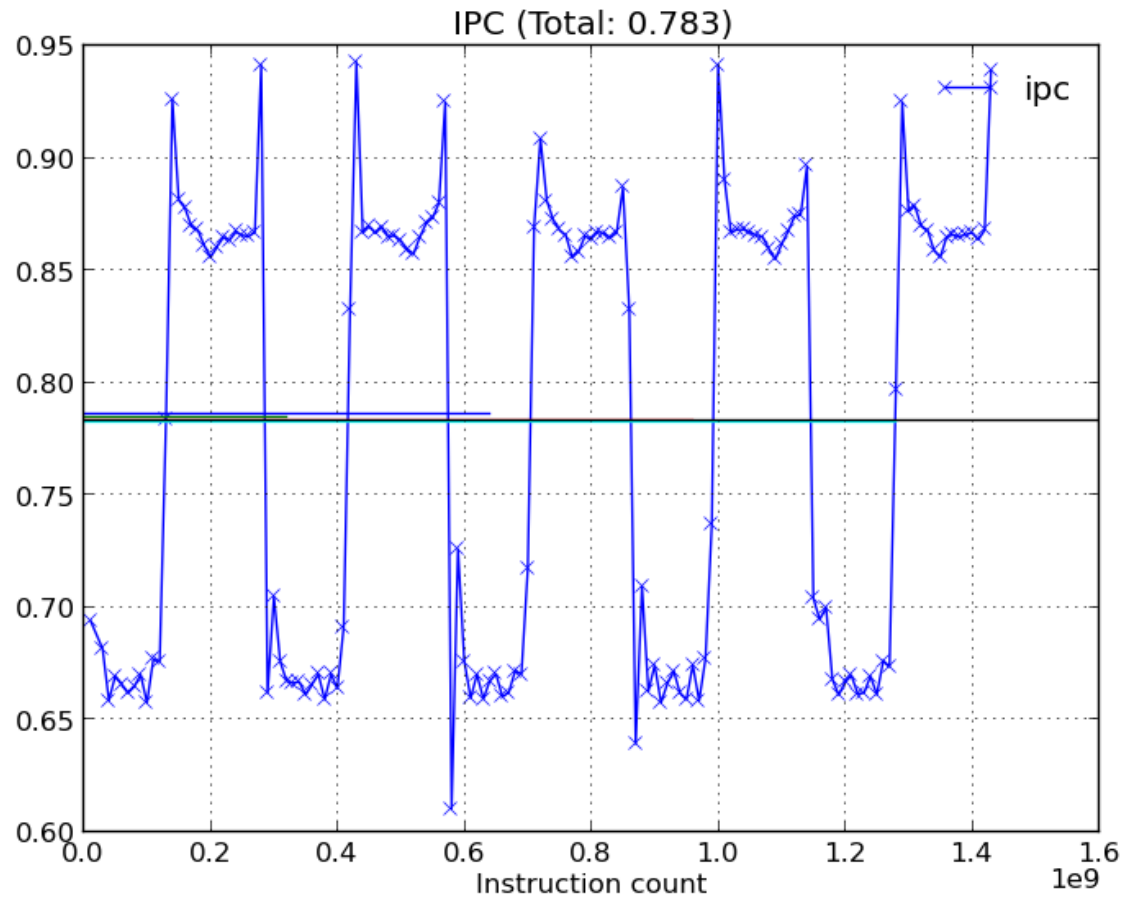
# canneal



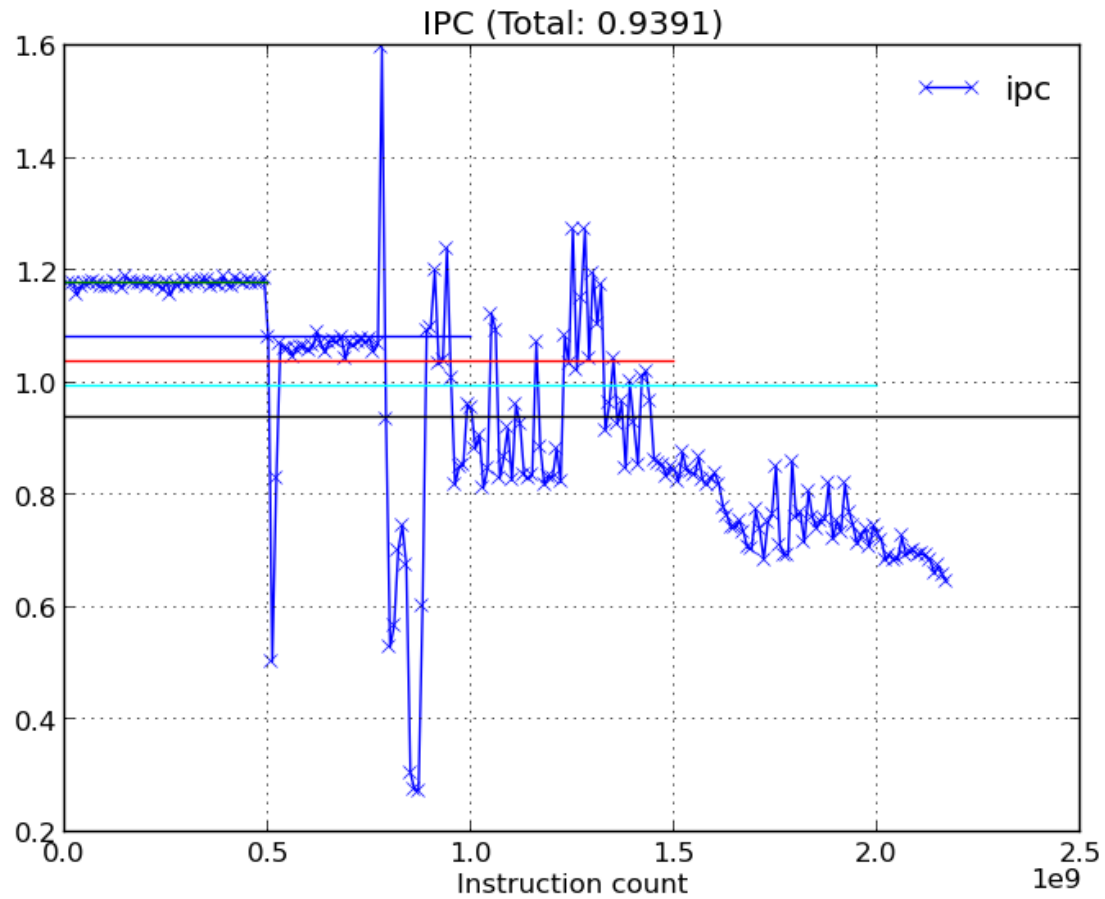
# dedup



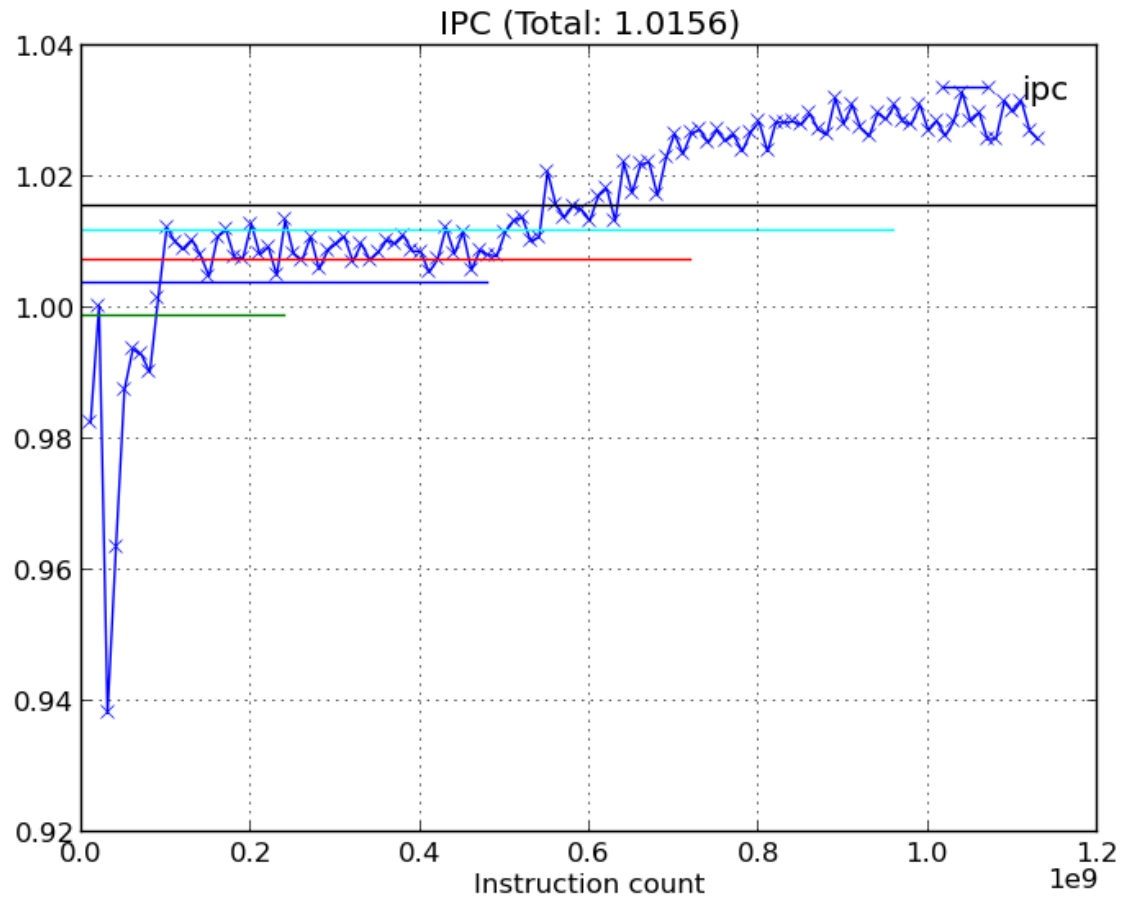
# fluidanimate



# freqmine

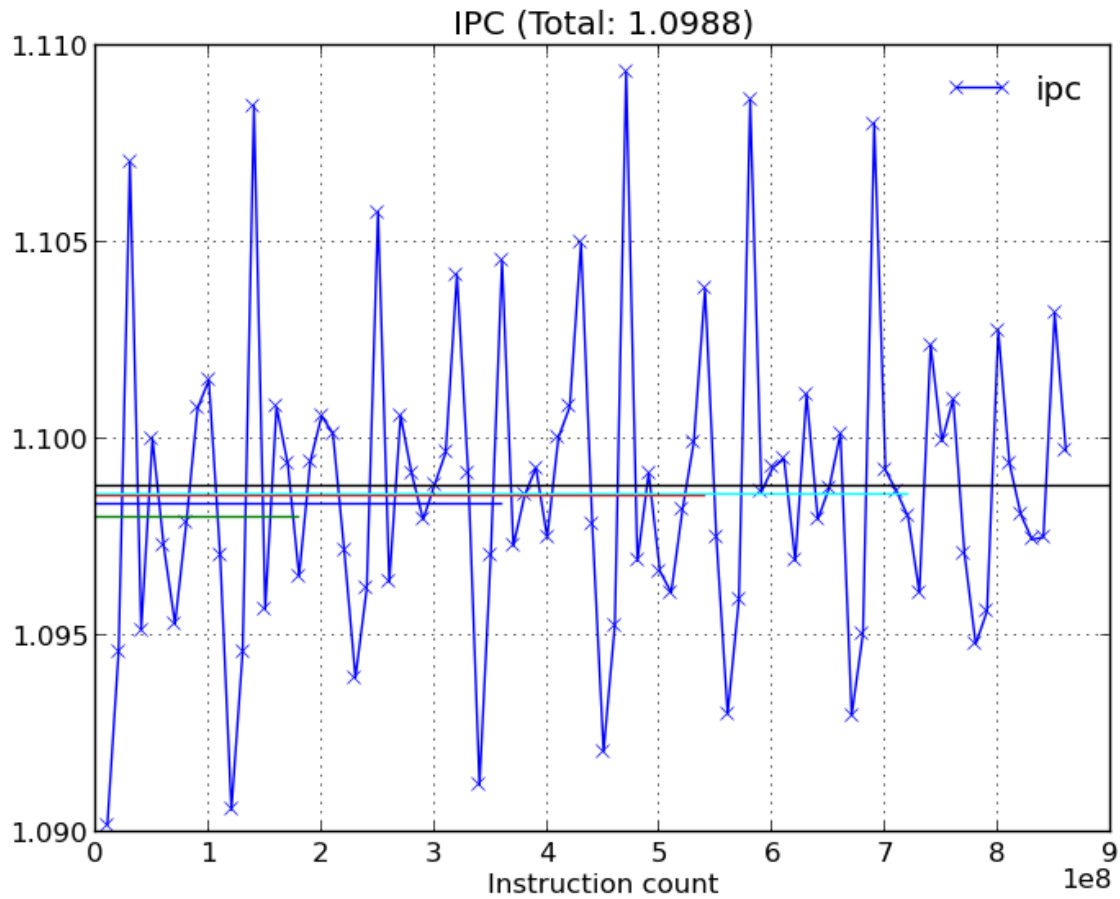


# streamcluster





# swaptions



# vips

