Review of: Improving Direct-Mapped Cache Performance by the Addition of a Small Fully-Associative Cache and Prefetch Buffers

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The paper is decently organized with text and pictures evenly distributed throughout the whole paper, and encourage the reader to actually start reading it. What I lack however, is the year it was written shown more clearly, since a lot of the information quickly gets outdated when it comes to computer technology.

Reading the title is a chore since it contains almost 20 words and it doesn’t really describe the topic in an interesting way at all.

A glance at the Abstract instantly gives you some keywords in the start of the paragraphs and I think it’s a good way to quickly show what’s about to come. However, the very first sentence in the abstract contains an acronym, “MIPS”, which probably means “Million Instructions Per Second”. Not everyone reading the abstract will know that.

I like the first sentence in the introduction as it quickly establishes the issue to be addressed. Unfortunately the whole paragraph is a bit long for my taste, and contains several unexplained acronyms that leave the reader more and more left out as the text continues. The introduction ends with a summary of the sections to come as usual.

The main section starts off by throwing countless amounts of acronyms at the reader and then presents a very unaesthetic table of programs with dodgy names and lacking description. I also found that the first sentence in section 4 is actually very near identical to one of the first in section 3 which describe what compulsory misses are. I’m not convinced that this is only a bad thing though since it’s nice with a recap sometimes, but it definitely could have been done in a better way, such as adding an “As earlier described…” or similar, and then summarize it rather than repeating the whole sentence again.

The Conclusion summarizes the different cache/buffer types and compares them rather evenly divided into different paragraphs and ends it with suggestions to future work as one would expect.

The references at the end looks just like normal with one exception. Number 5 refers to a “private conversation”. I don’t know what the rules are for referring to that but I don’t think it’s good. There should be some recorded information that can be linked to because what happens if, for example, Mr. Alan Eustace dies (as people apparently do)? Then there would be no way to get hold of the source of that information.

A lot of the graphs throughout the paper are cluttered with 12 different lines with a lot of them on top of each other, making them hard to see. I was bored out of my mind reading this article. Even though I have some basic knowledge about caching, I quickly lost focus of the main sections. I found nothing wrong with the language used though. There are however continuous use of unexplained acronyms through the whole paper.