*1. Summarize the (at most) 3 key main ideas.*

1. Dynamo identifies hot traces and interprets and generates optimized code fragments that are placed into the cache to be taken instead of the original on the next trace iteration.
2. Dynamo is capable of running with minimal overhead in memory and disruption to the original code by providing cache flushing management, signal handling, bail-out, and selective optimizations.
3. Dynamo can improve on average 5% of the runtime of most programs and can significantly improve certain programs in languages such as *li* and *perl* and highly optimized statically compiled programs.

*2. State the main contribution of the paper.*

The main contribution of the paper is to demonstrate a working dynamic optimization software tool that can significantly increase performance of statically compiled code (even highly optimized code).

*3. State the limitation of the paper.*

The limitation of this paper is that this technique is not capable of optimizing all types of code, and can even cause overhead when applied to them, such as *go, vortex, and ijpeg.*

*4. Find at least one open question and try to answer it.*

Has “Dynamo-aware” API been created and studied since this research paper has been published?

According to Hewlett-Packard Labs website, there does not seem to be any support for their Dynamo project except the research paper. I could not find Dynamo-aware API on the web or anything similar from the authors.