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Author: Holm, Carl Wilhelm Mattias
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Propositions

1. Automatic pointer linked data structure restructuring has the potential to generate substantial speedups in iterative programs, without further work from the programmer. (Chapter 2)

2. Due to the complexities of identifying shapes and especially grids in an arbitrary collections of nodes, explicit assumptions about node and arc attributes are needed in order to realistically analyze grids. (Chapter 3)

3. Language based restructuring offers restructuring without tracing overhead, and may handle complex traversal patterns even in dynamic pointer structures. (Chapter 4)

4. Hardware based restructuring is capable of handling very dynamic data structures with minimum programmer work and low overhead. (Chapter 5)

5. Getting papers about new systems published is practically impossible as the system itself cannot be described together with anything new within the page limits. See also proposition 6.

6. Getting papers with new insights in a system published is impossible if the paper on the original system is not published. See also proposition 5.

7. In many cases, computer scientists are too hung up around using a known standard benchmark as tests, even though the benchmark in question does not actually stress what is to be scientifically tested.

8. Micro optimization of instructions is in general underappreciated; proper selection of expressions and individual instructions will often result in significant speedups.

9. A computer programmer’s performance in historical European longsword training can be improved by having the programmer visualize bugs in front of him.
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