

Estimation and Optimization of the Performance of Polyhedral Process Networks

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Stellingen

behorende bij het proefschrift

Estimation and Optimization of the Performance of Polyhedral Process Networks

door Sven van Haastregt

- 1. To really solve a designer's problem, a system-level design tool should not only provide a forward synthesis flow, but also take design constraints into account [Chapter 1].
- 2. Reordering communication in a polyhedral process network was *mistakenly* believed to be prohibitively detrimental to the performance of a system, consequently excluding many transformations [Chapter 3, 5].
- 3. Synthesis of *Register Transfer Level (RTL)* implementations from sequential code is a preferable alternative to manual RTL design for streaming applications [Chapter 6].
- 4. Profiling is found to be a very cost-effective solution to a problem that is solvable analytically only with a lot of extra effort [Chapter 4].
- 5. If an academic researcher has the choice between an open-source and a closed-source solution, then the researcher should have a natural preference for the open-source solution.
- 6. Even if the semantics of a model of computation can be well understood by a 10-year-old, the implications of these semantics continue to baffle grown-up researchers from time to time.
- 7. No matter how carefully you construct the RTL specification of a system; you often end up reversing some reset signal polarity after the first (failed) prototype run.
- 8. Even the smartest compiler or design automation tool cannot repair the dumbest design decisions of a programmer or designer.
- 9. It is possible to complete a PhD programme without a single cup of coffee.
- 10. The world would be a more peaceful place if more people would appreciate extreme metal music.