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200

Jan L.A. van de Snepscheut

*Trace Theory and
VLSI Design*



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Foreword

The general Ph.D. Thesis is written for a very specific audience: the members of the Ph.D. Committee and a few close colleagues of the author. Hence, it is a rare occurrence when a Ph.D. Thesis is suitable reading for a much wider audience. The thesis of Jan L.A. van de Snepscheut is such an exception, and I applaud its inclusion in Springer's "Lecture Notes in Computer Science".

It is a text that can be read with many eyes, even with eyes looking beyond its subject matter proper. This is due to the style in which its proofs have been conducted: the proofs are in a form of annotated formal calculations we owe to W.H.J. Feijen, a form, which makes the proofs as pleasant to read as they were to write down. The mere fact that this text is the first large-scale application of Feijen's discipline is, all by itself, a sufficient justification for its wider dissemination.

For those with more technical interests it has more technical charms. It is, for instance, not a mere exercise in some sort of algebra: its

close connection between formalism and physical reality ranks it among the jewels of applied science. It is the first formal attack on the technically important notion of delay-insensitivity. On a more detailed level, the text is full of nuggets of mathematical technology: I mention the algorithm (plus its correctness proof) for the minimization of finite automata and the way in which the traditional problems of concatenation have been avoided by distinguishing between "components" and "commands".

Finally, I applaud its inclusion in the Lecture Notes because it is a well-written manuscript in every sense of the words.

Edsger W. Dijkstra

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