Summary
DIVA: A Reliable Substrate for Deeb Submicron Microarchitecture Design
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1 To be completed before class

What are the problems solved by this paper? (50 words)
The processor complexity is increasing due to smaller size of transistors, reducing supply voltages and design. Assuring the reliability of processors is growing increasingly important, difficult and expensive day by day due to exponential number of start states and many infrequent errors and environmental radiation hazards.

What are the approaches attempted by this paper? (50 words)
The author proposes to introduce a DIVA checker in the processor architecture which divides the pipeline. The commit stage is transferred into the DIVA checker which verifies the communication and computation done by the processor and commits only the correct operations. The author proposes to use large transistors to prevent may electrical hazards and additional register and memory ports so as to ensure performance.

What are the main conclusions of this paper? (50 words)
DIVA is a feasible dynamic verification scheme to increase the reliability of execution. It can be employed to make the processor resistant from environmental and electrical errors by detecting an exception and re-execution instructions when an error occurs.

2 To be completed after class

Did this paper address an important issue? Explain. (100 words)

Are the proposed approaches valid? Describe its strength and weakness. (100 words)

Do the results support the conclusions? Explain. (100 words)

Describe the potential future works? (100 words)