Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

Proposal for Thesis Research in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

Title:	Parallel Processor Architecture
Submitted by:	Peter Nuth 305 Memorial Drive, 606C Cambridge, MA 02139
	(Signature of Author)
Date of Submission:	November 13, 2018
Expected Date of Completion:	September 1990
Laboratory:	Artificial Intelligence Laboratory

Brief Statement of the Problem:

The proposed research is a study of processor architecture for large scale parallel computer systems. The thesis introduces mechanisms for fast context switching, synchronization between tasks, and run-time binding of variable names to processor memory. Various design tradeoffs are evaluated through simulation of a processor running a typical load. This work contains estimates of the speed and complexity of the different alternatives as implemented in VLSI.

Massachusetts Institute of Technology
Department of Electrical Engineering
and Computer Science
Cambridge, Massachusetts 02139

Doctoral Thesis Supervision Agreement

To: Department Graduate Committee
From: Professor William J. Dally

The program outlined in the proposal:

Title: Parallel Processor Architecture
Author: Peter Nuth
Date: November 13, 2018

is adequate for a Doctoral thesis. I believe that appropriate readers for this thesis would be:

Reader 1: Professor Arvind
Reader 2: Professor Thomas Knight

Facilities and support for the research outlined in the proposal are available. I am willing to supervise the thesis and evaluate the thesis report.

Signed: _____
Associate Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

_____

_____

_____

Massachusetts Institute of Technology
Department of Electrical Engineering
and Computer Science
Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor Arvind

The program outlined in the proposal:

Title: Parallel Processor Architecture
Author: Peter Nuth
Date: November 13, 2018
Supervisor: Professor William J. Dally
Other Reader: Professor Thomas Knight

is adequate for a Doctoral thesis. I am willing to aid in guiding the research and in evaluating the thesis report as a reader.

Signed: _____
Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

Massachusetts Institute of Technology
Department of Electrical Engineering
and Computer Science
Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor Thomas Knight

The program outlined in the proposal:

Title: Parallel Processor Architecture
Author: Peter Nuth
Date: November 13, 2018
Supervisor: Professor William J. Dally
Other Reader: Professor Arvind

is adequate for a Doctoral thesis. I am willing to aid in guiding the research and in evaluating the thesis report as a reader.

Signed: _____
Assistant Professor of Electrical Engineering and Computer Science

Date: _____

Comments:

Massachusetts Institute of Technology
Department of Electrical Engineering
and Computer Science
Cambridge, Massachusetts 02139

Doctoral Thesis Reader Agreement

To: Department Graduate Committee
From: Professor William J. Dally

The program outlined in the proposal:

Title: Parallel Processor Architecture
Author: Peter Nuth
Date: November 13, 2018
Supervisor: Professor William J. Dally
Other Reader: Professor Arvind
Other Reader: Professor Thomas Knight

is adequate for a Doctoral thesis. I am willing to aid in guiding the research and in evaluating the thesis report as a reader.

Signed: _____
Associate Professor of Electrical Engineering and Computer Science

Date: _____

Comments: