Thomas M. Stricker
School of Computer Science
Carnegie Mellon University
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Curriculum vitae

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Tel: (412) 268-2580
March 5, 1996

Name: Thomas Martin Stricker

Born: June 6, 1963

Citizenship: Switzerland, US permanent resident

Education:

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Title of Dissertation: "A Communication Infrastructure for Parallel and Distributed Programs"
Thesis committee: Prof. Thomas Gross (advisor), Guy Blelloch, Dave O'Hallaron, Peter Steenkiste (CMU) and Kai Li (Princeton University).

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- *From AAPC Algorithms to High Performance Permutation Routing and Sorting*, to appear in the 6th ACM Symposium on Parallel Algorithms and Architectures, SPAA, Padua, Italy, June 1996 with .Jonathan Hardwick.
- *An Architecture for Optimal All-to-All Personalized Communication*, in the 6th ACM Symposium on Parallel Algorithms and Architectures, SPAA, Cape May, NJ, June 1994, with Susan Hinrichs, Corey Kosak, David O'Hallaron and Richiiro Take.
- *Supporting sets of Arbitrary Connections on iWarp through Communication Context Switches,* in the 5th ACM Symposium on Parallel Algorithms and Architectures, SPAA, Schloss Velen, Westfalia, Germany, June 1993, Anja Feldmann and Thomas E. Warfel.
- *Supporting the Hypercube Programming Model on Mesh Architectures*, in the 4th ACM Symposium on Parallel Algorithms and Architectures, SPAA, San Diego CA, June 1992.
- *Subset Barrier Synchronization on Distributed Memory Parallel Computers* in the 4th ACM Symposium on Parallel Algorithms and Architectures, SPAA, San Diego CA, June 1992, with Anja Feldmann, Thomas Gross and David O'Hallaron.
- *Message Routing in Irregular Meshes and Tori* in Proceedings of the 6th IEEE Distributed Memory Computing Conference, DMCC, Portland OR, May 1991 (Note: my original article appeared recently as an unauthorized version in the refereed Elsevier Journal: Microprocessing and Microprogramming, plagiarized by Mr. C.V.Papadopoulos, Aug. 1995).
- *ECONET, Ein Netzwerk von Micro Computern für den Unterricht* in Proceedings of Swiss Youth Research Contest (Jahresbericht von Schweizer Jugend Forscht), May 1982, Fribourg, Switzerland.

Most of my papers listed above and their abstracts appear as CMU technical reports and are distributed electronically by “anonymous ftp” from *warp.cs.cmu.edu* in *iWarp-papers* or by the World Wide Web, see *http://www.cs.cmu.edu/~tomstr.* Follow link to *research papers.*

List of References:

The names of my references are not made public on the internet. Please contact me directly at tomstr@cs.cmu.edu for a list of five references.