

CIS 668	Parallel Algorithms and Architectures	Dr. D. Nassimi
Sect: 102	Course Syllabus	Spring 2004
Monday 6-9 pm, FAC 405		

Prof.: David Nassimi
Office: ITC 4308
Office Hours: T,Th 1:00-2:30
Homepage: <http://web.njit.edu/~nassimi>

Course Description: Architectures and algorithms for parallel computers. Interconnection networks, data routing algorithms, and various communication operations. Design of communication-efficient parallel algorithms for a variety of problems, including: prefix computation, matrix problems, parallel sorting, sorting networks, and graph algorithms.

Prereq: CIS 610 (algorithms)
CIS 650 (architectures).

Textbook: Ananth Grama, Anshul Gupta, George Karypis, and Vipin Kumar, *Introduction to Parallel Computing*, Second Edition, Pearson Education, Addison Wesley 2003. ISBN: 0-201-64865-2

Additional Reference Books

1. Michael Quinn, *Parallel Programming in C with MPI and OpenMP*, McGraw-Hill, 2004. (ISBN 0-07-282256-2)
2. F.T. Leighton, *Parallel Algorithms and Architectures: Arrays, Trees, Hypercubes*, Morgan Kaufmann Publishers, 1992. (ISBN 1-55860-117-1)
3. Joseph JaJa, *An Introduction to Parallel Algorithms*, Addison-Wesley, 1992. (ISBN 0-201-54856-9)
4. Russ Miller and Quentin Stout, *Parallel Algorithms for Regular Architectures: Meshes and Pyramids*, MIT Press, 1996. (ISBN 0-262-13233-8)
5. Selim G. Akl, *Parallel Computation: Models and Methods*, Prentice Hall, 1997. (ISBN 0-13-147034-5)

Evaluation (tentative):

Homeworks	75%
Final (Take-Home)	25%

In graph theory a minimum spanning tree (MST) of a graph with n vertices and m edges is a tree subgraph that contains all of its vertices and is of minimum weight. MSTs are useful and versatile tools utilised in a wide variety of practical and theoretical fields. For example, a company looking to supply multiple stores with a certain product from a single warehouse might use an MST originating at the warehouse to calculate the shortest paths to each company store. In this case the stores and the warehouse are

syl.pdf - CIS 668 Parallel Algorithms and Architectures Dr. D. Nassimi Sect: 102 Course Syllabus Spring 2004 Monday 6-9 pm, FAC 405 Prof.: David Nassimi Office: ITC 4308. Parallel algorithms book pdf - lyryjiqo.files.wordpress.com.pdf - 0 downloads. parallel-algorithms-book-pdf.pdf - Parallel algorithms book pdf Introduction to Parallel Algorithms and Architectures : Arrays, Trees, Hypercubes by F. A survey on Knodel graphs - ResearchGate.pdf - 0 downloads. 00b7d52811fe071791000000.pdf?origin=publication_list - (Introduction to Parallel Algorithms and Architectures: Arrays The deep hierarchical RL algorithm is proposed to apply to both MDP and POMDP learning. We evaluate the proposed algorithm on various challenging hierarchical POMDP. [30] proposed an option-critic architecture, which has a fixed number of intra-options, each of which is followed by a "deep" policy. At each time step, only one option is activated and is selected by another policy that is called "policy over options". In terms of architecture, a Q-network parameterized by \hat{Q} , e.g., $Q(s, a|\hat{Q})$ is built on a convolutional neural network (CNN) which receives s as input. where \hat{Q} denotes the learning rate, k denotes the number an input of four images of size 84×84 and is processed. of time steps elapsing between s and s' and r denotes an by three hidden CONV layers.