Algorithms in the "Real World"
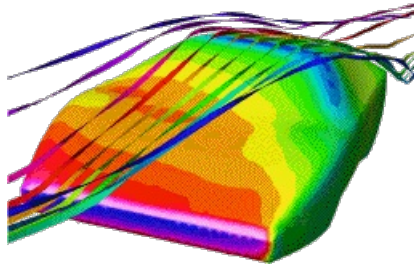
- [Course Versions](#)
- [Course Topics](#)
- [Lecture Notes](#)
- [Information on algorithms available on the web](#)
- [Companies that sell products that use various algorithms](#)

Course Versions

- [Fall 2015](#)
- [Spring 2014](#)
- [Spring 2013](#)
- [Spring 2012](#)
- [Fall 2010](#)
- [Fall 2009](#)
- [Fall 2008](#)
- [Fall 2007](#)
- [Fall 2006](#)
- [Fall 2005](#)
- [Fall 2004](#)
- [Fall 2003](#)
- [Spring 2003](#) (undergraduate version)
- [Fall 2002](#)
- [Fall 2001](#)
- [Fall 2000](#)
- [A workshop on Algorithms in the "Real World".](#) May 25-26, 2000.
- [Fall 1999](#)
- [Fall 1997](#)
- [Spring 1996](#)

Course Topics

- [Data Compression](#)
- [Cryptography](#)
- [Linear Programming](#)
- [Integer Programming](#)
- [Triangulation and Meshing](#)
- [The N-body Problem](#)
- [VLSI Layout](#)
- [Pattern Matching in Computational Biology](#)
- [Indexing and Search Engines](#)

Lecture Notes (Fall 97)

The following notes are all in compressed (gzip) postscript.

Full Notes (300 pages, .8Mbytes compressed)

Notes by topic

Information on algorithms available on the web:

- A comprehensive list of software products, many of which use various algorithms.
- Applications of computational geometry.
- The Stony Brook Algorithm Repository. A collection of implementations of algorithms in C, C++, Pascal and Fortran that are available over the web. Each implementation is ranked.
- Finite element mesh generation.
- Operations Research Resources
- comp.graphics.algorithms FAQ
- Yahoo: Science:Computer Science:Algorithms
- The use of combinatorial algorithms in VLSI routing problems
- Robotics faq
- Tools forSequence analysis in Biology
- Machine Learning resources.

A small sample of companies that sell products that use various algorithms:

Optimization	Geometry and Meshing	Biology	Cryptography
CPLEX CAPS Logistics IBM OSL Astrokettle APC Carmen Systems Lindo Systems LogicTools	Fluent Geomagic Pointwise Ansys FEGS CFDRC Marc Femsys AVL	Celera Curagen HGSI MLNM Hyseq Genset Incyte Variagenics	Algorithmic Research RSA Security Entrust Cryptomathic Netegrity InterTrust Zero Knowledge Mach 5
Trick's List	Owen's List	Netsci's list	Rivest's List

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