0.1 Annotated Bibliography

The book by Vasek Chvatal [Chv93] is a gentle introduction to linear programming. I find it too verbose in many parts, but students seem to like it. It is the Cormen-Leiserson-Rivest of linear programming.

Another excellent book on linear programming is by Manfred Padberg [Pad99].

Lex Schrijver's book [Sch86] covers the theory of linear and integer programming. It is highly recommended, but it is tersely written. You will need a lot of time to read it.

The book by Cook, Cunningham, Pulleyblank and Shrijver [CCPS98] deals with the interplay of linear and integer programming and network algorithms. The emphasis is put on algorithms.

The book by Nemhauser and Wolsey [NW88] covers linear and integer programming, theory as well as algorithmic aspects. I prefer Shrijver's book as far as linear programming is concerned and prefer the book by Nemhauser and Wolsey as far as integer linear programming is concerned.

The text by Bertsimas [Ber91] was used by Alexander Bockmayr when he taught the course a few years ago. I am not familiar with the book.

I will add books as we go along

Systems CPLEX [CPL] is a very successful commercial program for solving linear programs and (unstructured) integer linear programs.

SOPLEX [SoP] is a public domain LP-solver. I use it on my notebook.

Bibliography

[Ber91] D.P. Bertsimas. *Linear Network Optimization: Algorithms and Codes.* MIT Press, 1991.

[CCPS98] W.J. Cook, W.H. Cunningham, W.R. Pulleyblank, and A. Schrijver. *Combinatorial Optimization.* John Wiley & Sons, Inc, 1998.

[Chv93] V. Chvatal. *Linear Programming.* Freeman, 93.

[CPL] CPLEX. `www.cplex.com`.

[NW88] G.L. Nemhauser and L.A. Wolsey. *Integer and Combinatorial Optimization.* John Wiley & Sons, 1988.

[Pad99] Manfred Padberg. *Linear optimization and extensions*, volume 12 of *Algorithms and combinatorics.* Springer, 2. rev. and exp. ed. edition, 1999.

[Sch86] A. Schrijver. *Theory of Linear and Integer Programming.* Wiley, 1986.

[SoP] SoPlex. `www.zib.de/Optimization/Software/Soplex`.