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Progress in Academic computational integer programming. (English) Zbl 1317.90204

Jünger, Michael (ed.) et al., Facets of combinatorial optimization. Festschrift for Martin Grötschel on the occasion of his 65th birthday. Berlin: Springer (ISBN 978-3-642-38188-1/hbk; 978-3-642-38189-8/ebook). 483-506 (2013).

Summary: This paper discusses issues related to the progress in computational integer programming. The first part deals with the question to what extent computational experiments can be reproduced at all. Afterward the performance measurement of solvers and their comparison are investigated. Then academic progress in solving mixed-integer programming at the examples of the solver SIP and its successor SCIP is demonstrated. All arguments are supported by computational results. Finally, we discuss the pros and cons of developing academic software for solving mixed-integer programs.

For the entire collection see [\[Zbl 1282.90010\]](#).

MSC:

[90C10](#) Integer programming

Cited in **2** Documents

Keywords:

performance measurement of solvers; academic software

Software:

CPLEX; Gurobi; MIPLIB; SCIP; SIP; XPRESS

Full Text: [DOI](#)