Last updated: 22 Aug 2009

Description of benchmarks extr22 and extr30

These models have a single solution corresponding to the steady state of an extractive distillation column with 22 and 30 theoretical stages, respectively. The model (MESH equations) and the notion are discusses in greater detail in:

A. Baharev, T. Achterberg, E. Rév;
Computation of an extractive distillation column with affine arithmetic;
AIChE Journal, 2009, 55 (7), 1695-1704.
(preprint available from http://reliablecomputing.eu)

The above cited paper seems to be the first paper on computing distillation columns with interval methods. More recent results are given in:

A. Baharev, E. Rév;
A complete nonlinear system solver using affine arithmetic;
Interval Analysis and Constraint Propagation for Applications (IntCP 2009);
Workshop held in conjunction with the 15th International Conference on Principles and Practice of Constraint Programming (CP 2009);
Lisbon, Portugal, September 20th, 2009.
(manuscript available from http://reliablecomputing.eu)