

Solving a 6 x 6 Survo puzzle using matrix combinatorial products

KIMMO VEHKALAHTI

*Department of Social Research
University of Helsinki (Finland)*
kimmo.vehkalahti@helsinki.fi

We apply a new computational method for solving a demanding 6×6 Survo puzzle with binary matrices that are recoded and combined using the Hadamard, Kronecker, and Khatri–Rao products. An extra challenge is provided by readily given numbers that make the puzzle solvable.

This is a joint work with R. SUND (University of Helsinki).

References

- [1] S. Mustonen, *On certain cross sum puzzles*, <http://www.survo.fi/papers/puzzles.pdf>, 2006.
- [2] R. Sund, K. Vehkalahti, S. Mustonen, *Muste – editorial computing environment within R*. Proceedings of COMPSTAT 2012, 20th International Conference on Computational Statistics, 27–31 August 2012, Limassol, Cyprus, <http://www.survo.fi/muste/publications/sundetal2012.pdf>, 777–788.
- [3] K. Vehkalahti, *Leaving useful traces when working with matrices*, Proceedings of the 14th IWMS, ed. by Paul S. P. Cowpertwait, Massey University, Auckland, New Zealand, 143–154.
- [4] K. Vehkalahti, R. Sund, *Solving Survo puzzles using matrix combinatorial products*, Journal of Statistical Computation and Simulation, <http://www.tandfonline.com/doi/full/10.1080/00949655.2014.899363>.