

Some selected publications

Below references and links to some selected papers

Professor Karl Tapio Westerlund

1. Westerlund T., Eronen V.-P. and Mäkelä M. M. (2022).

Using projected cutting planes in the extended cutting plane method.

Optimization, **71**, 4147-4176.

<https://doi.org/10.1080/02331934.2021.1939337>

2. Lundell A., Kronqvist J. and Westerlund T. (2022).

The supporting hyperplane optimization toolkit for convex MINLP.

Journal of Global Optimization, **84**, 1–41.

<https://doi.org/10.1007/s10898-022-01128-0>

3. Westerlund T., Eronen V.-P. and Mäkelä M. M. (2018).

On solving generalized convex MINLP problems using supporting hyperplane techniques.

Journal of Global Optimization, **71**, 987-1011.

<https://doi.org/10.1007/s10898-018-0644-z>

4. Lundell A. and Westerlund T. (2018). Solving global optimization problems using reformulations and signomial transformations. *Computers and Chemical Engineering*, **116**, 122–138.

<https://doi.org/10.1016/j.compchemeng.2017.10.035>

5. Skjäl A. and Westerlund T. (2014). New methods for calculating α BB-type underestimators.

Journal of Global Optimization, **58**, 411-427.

<https://doi.org/10.1007/s10898-013-0057-y>

6. Eronen V.-P., Mäkelä M. M. and Westerlund T. (2014). On the generalization of ECP and OA methods to nonsmooth convex MINLP problems. *Optimization*, **63**, 1057–1073.

<https://doi.org/10.1080/02331934.2012.712118>

7. Lundell A., Skjäl A. and Westerlund T. (2013). A reformulation framework for global optimization.

Journal of Global Optimization, **57**, 115–141.

<https://doi.org/10.1007/s10898-012-9877-4>

8. Skjäl A., Westerlund T., Misener R. and Floudas C. A. (2012). A generalization of the classical α BB convex underestimation via diagonal and non-diagonal quadratic terms.

Journal of Optimization Theory and Applications, **154**, 462–490.

<https://doi.org/10.1007/s10957-012-0033-6>

9. Emet S. and Westerlund T. (2008). Solving a dynamic separation problem Using MINLP techniques.

Applied Numerical Mathematics, **58**, 395–406.

<https://doi.org/10.1016/j.apnum.2007.01.023>

10. Still C. and Westerlund T. (2006). Solving convex MINLP optimization problems using a sequential cutting plane algorithm. *Computational Optimization and Applications*, **34**, 63–83.

<https://doi.org/10.1007/s10589-005-3076-x>

11. Westerlund T. and Pörn R. (2002). Solving Pseudo-Convex Mixed Integer Optimization Problems by Cutting Plane Techniques. *Optimization and Engineering*, **3**, 253-280.

<https://doi.org/10.1023/A:1021091110342>

12. Westerlund T. and Pettersson F. (1995). An extended cutting plane method for solving convex MINLP problems. *Computers and Chemical Engineering*, **19**, 131–136.

[https://doi.org/10.1016/0098-1354\(95\)87027-X](https://doi.org/10.1016/0098-1354(95)87027-X)

These and some additional papers can be found from: [tp://users.abo.fi/twesterl/some-selected-papers/](https://users.abo.fi/twesterl/some-selected-papers/)