

our `QInter2` algorithm outperforms the existing grid algorithm and suggest that our new heuristic does well on problems with many outliers. A future work would embed our new algorithms in real robust parameter estimation applications.

References

- Batagelj, V., and Zaversnik, M. 2011. Fast Algorithms for Determining (generalized) Core Groups in Social Networks. *Advances in Data Analysis and Classification* 5(2):129–145.
- Beck, J. V., and Arnold, K. J. 1977. *Parameter Estimation in Engineering and Science*. Wiley series in probability and mathematical statistics. John Wiley & Sons.
- Benhamou, F.; Goulard, F.; Granvilliers, L.; and Puget, J.-F. 1999. Revising Hull and Box Consistency. In *Proc. ICLP*, 230–244.
- Chabert, G., and Jaulin, L. 2009. Contractor Programming. *Artificial Intelligence* 173:1079–1100.
- Chabert, G. 2014. www.ibex-lib.org.
- Chandran, L.; Francis, M.; and Sivasadan, N. 2010. Geometric Representation of Graphs in Low Dimension Using Axis Parallel Boxes. *Algorithmica* 56(2):129–140.
- Chew, P., and Marzullo, K. 1991. Masking failures of multi-dimensional sensors. In *Reliable Distributed Systems, 1991. Proceedings., Tenth Symposium on*, 32–41.
- Graham, R. L.; Grötschel, M.; and Lovász, L., eds. 1995. *Handbook of Combinatorics (Vol. 1)*. Cambridge, MA, USA: MIT Press.
- Jaulin, L., and Bazeille, S. 2009. Image Shape Extraction using Interval Methods. In *Sysid 2009*.
- Jaulin, L.; Walter, E.; and Didrit, O. 1996. Guaranteed Robust Nonlinear Parameter Bounding. In *CESA'96 IMACS Multiconference (Symposium on Modelling, Analysis and Simulation)*, 1156–1161.
- Lhomme, O. 1993. Consistency Techniques for Numeric CSPs. In *Proc. IJCAI*, 232–238.
- Ostergard, P. R. 2002. A Fast Algorithm for the Maximum Clique Problem. *Discrete Applied Mathematics* 120(1–3):197–207.
- Papadimitriou, C. H., and Yannakakis, M. 1982. The Complexity of Facets (and Some Facets of Complexity). In *Proceedings of the Fourteenth Annual ACM Symposium on Theory of Computing, STOC*, 255–260. New York, NY, USA: ACM.
- Roberts, F. S. 1969. On the boxicity and cubicity of a graph. *Recent Progresses in Combinatorics, Academic Press, New York* 301–310.
- Walter, E., and Piet-Lahanier, H. 1993. Guaranteed Linear and Nonlinear Parameter Estimation from Bounded-error Data: A Survey. In *ISCAS*, 774–777.