

NUMERICAL TESTS ON A NEW STRATEGY FOR PARALLEL DERIVATIVE FREE OPTIMIZATION

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We present numerical tests on a new paradigm for solving derivative free optimization problems in a multiprocessor environment. The exchange of information among processors is realized whenever a point that belong to a sequence of quasi-minimal points is detected. This concept was coined by [1] for unconstrained optimization and later adapted to bound constraint optimization by [2]. The computing time needed for solving benchmarking problems is clearly superior to those given by state of the art packages for unconstrained and bound constrained problems.

References

- [1] I. D. Coope and C. J. Price, *Frame based methods for unconstrained optimization*, Optimization Theory and Applications, 107-2 (2000), 261–274.
- [2] U. M. García, I. García, P. Rodríguez, *On sequential and parallel non monotone derivative free algorithms for box constrained optimization*, (2011), submitted.