CMAES

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Abstract

This paper provides a sample of a LATEX document which conforms to the formatting guidelines for ACM SIG Proceedings. It complements the document *Author's Guide to Preparing ACM SIG Proceedings Using LATEX2$_\epsilon$ and BibTEX*. This source file has been written with the intention of being compiled under LATEX2$_\epsilon$ and BibTeX.

The developers have tried to include every imaginable sort of "bells and whistles", such as a subtitle, footnotes on title, subtitle and authors, as well as in the text, and every optional component (e.g. Acknowledgments, Additional Authors, Appendices), not to mention examples of equations, theorems, tables and figures.

To make best use of this sample document, run it through LATEX and BibTeX, and compare this source code with the printed output produced by the dvi file.

Algorithm 1 Basic pCMAES

Require: $obs \in \mathbb{R}^O, Evaluate(\mathbb{R}^D, \mathbb{R}^O) \Rightarrow \mathbb{R}, \lambda \in \mathbb{Z}_+$
  for all Processors $p \in P$ **do**
    initialize Random Seed on p
    initialize mean m, covariance C, step size σ, path(s) *path*
    $\mu \Leftarrow \frac{\lambda}{2}$
    while NotDone **do**
      for $i \Leftarrow 1 \text{to} \frac{\lambda}{\|P\|}$ **do**
        $q_i \Leftarrow N(m, C)$
        $v_i \Leftarrow Evaluate(q_i, observations$
      end for
      $Sort(v, q)$
      $m \Leftarrow mean(q_1 : q_\mu)$
      Update *path* using m
      Update σ using *path*
      Update C using path, σ
      Determine NotDone
    end while
    Reduce Best Solution
  end for

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1 Introduction

Localization of dipole
   Inverse problems

1.1 CMAES

2 The body of The Paper

Typically, the body of a paper is organized into a hierarchical structure, with numbered or unnumbered