**Article information**

**Article title**

*OPTIMUS: a mitldimension global optimization package*

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**Keywords**

*Global optimization; Stochastic methods; Termination rules.*

**Abstract**

*A variety of problems from many research areas can be modeled using global optimization, such as problems in the area of image processing, medical informatics, economic models, etc. This paper presents a programming tool written in ANSI C++, which researchers can use to formulate the problem to be solved and then make use of the local and global optimization methods provided by this tool to efficiently solve such problems.*

**Graphical abstract**

**Specifications table**

|  |  |
| --- | --- |
| **Subject Area** | Computer Science |
| **More specific subject area** | *Global Optimization* |
| **Method name** | *Optimus* |
| **Name and reference of original method** |  |
| **Resource availability** | *https://github.com/itsoulos/OPTIMUS/* |

**Method details**

## 1. Introduction

The task of locating the global minimum of a continuous and differentiable function f:S → R,S ⊂ R n is introduced here. The task of locating the global optimum can be formulated as, determine

x \* = arg min x ∈ S f( x ) (1) with S : S=[ a 1 , b 1 ] ⊗ [ a 2 , b 2 ] ⊗ … [ a n , b n ]

## 2. Software details

## 3. Experiments

## 4. Conclusions

**Ethics statements**

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**Declaration of interests:  *There are no conflicts of interest***

x The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

*☐ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:*

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