

# Title of your work

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**Abstract.** abstract comes here

## 1 Introduction

This article illustrates how an existing algorithm, namely simulated annealing, can be tuned using the SPOT framework.

Related work.

Section 2 introduces TSP. Section 3 describes Simulated Annealing.

## 2 Traveling Salesman Problems

### 2.1 Definitions

### 2.2 Implementation in R

## 3 Simulated Annealing

### 3.1 The Algorithm

### 3.2 Implementation in R

## 4 Sequential Parameter Optimization

### 4.1 Overview

The SPOT package can be installed from within R using the

```
install.packages("SPOT")
```

command. Alternatively, SPOT can be downloaded from the comprehensive R archive network at <http://CRAN.R-project.org/package=SPOT>. The latter procedure is recommended for the experienced R user only. SPOT is one possible implementation of the *sequential parameter optimization* (SPO) framework introduced in [2]. For a detailed documentation of the functions from the SPOT package, the reader is referred to the package help manuals. [1] introduces the SPOT and applications.

## 4.2 Interfacing With Simulated Annealing

In Figure ?? the tuning is shown.

## 5 Experiments

## 6 Results

## 7 Discussion

## 8 Summary

Knuth says: [3]

## References

1. Bartz-Beielstein, T., Zaefferer, M.: A gentle introduction to sequential parameter optimization. Tech. Rep. TR 01/2012, CIPplus (2012)
2. Bartz-Beielstein, T.: Experimental Research in Evolutionary Computation—The New Experimentalism. Natural Computing Series, Springer, Berlin, Heidelberg, New York (2006)
3. Knuth, D.E.: The art of computer programming. Pearson Education (2005)