URL: http://cxc.harvard.edu/ciao3.4/simul−pow−1.html
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AHELP for CIAO 3.4

simul−pow−1

Context: sherpa

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Synopsis

A combination of SIMUL−ANN−1 with POWELL.

Syntax

```
simul−pow−1  [nloop] [tchn] [nanne] [nsamp] [iseed] [tiny]
```

Description

This method packages together SIMUL−ANN−1 and the POWELL routine; at the end of each of the cooling sequences, or annealing cycles, the POWELL method is invoked. Probably one of the best choices where one `best' answer is to be found, but at the expense of a lot of computer time.

Note that the parameters of SIMUL−POW−1 are those of SIMUL−POW−1 itself (which have the same meaning as in routine SIMUL−ANN−1), plus those of POWELL.

All of the SIMUL−POW−1 parameters, with the exception of nanne, are explained under SIMUL−ANN−1. Parameter nanne specifies the number of annealing cycles to be used; successive anneal cycles start from cooler temperatures and have slower cooling. The pattern of anneals that has been chosen (the ``annealing history'') is not magic in any way−−for best results a different annealing history may be better for any particular objective function−−but the pattern chosen seems to serve well.

Parameters

name	type	def	min	max
nloop	integer	256	16	4096
tchn	real	0.95	0.1	0.9999
nanne	integer	16	1	256
nsamp	integer	128	16	1024
iseed	integer	14391	−1.e+20	1.e+20

tiny	real	1.e−12	1.e−20	1.e−6

Detailed Parameter Descriptions

Parameter=nloop (integer default=256 min=16 max=4096)

Maximum number of temperatures.

Parameter=tchn (real default=0.95 min=0.1 max=0.9999)

Factor for temperature reduction.

Parameter=nanne (integer default=16 min=1 max=256)

Number of anneals.

Parameter=nsamp (integer default=128 min=16 max=1024)

Number of movements at each temperature.

Parameter=iseed (integer default=14391 min=−1.e+20 max=1.e+20)

Seed for random number generator.

Parameter=tiny (real default=1.e−12 min=1.e−20 max=1.e−6)

Smallest temperature allowed.

Bugs

See the Sherpa bug pages online for an up−to−date listing of known bugs.

See Also

sherpa

get_method_expr, grid, grid−powell, levenberg−marquardt, method, monte−lm, monte−powell, montecarlo, powell, sigma−rejection, simplex, simul−ann−1, simul−ann−2, simul−pow−2, usermethod

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