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hyperrefDriver (autodetected): hpdftex re-runfilecheckFeature \pdfmdfivesum is not available(e.g. pdfTeX or LuaTeX with package 'pdftexcmds').Therefore file contents cannot be checked efficientlyand the loading of the package is aborted

SOM Documentation

Release 1.0.0

Guilherme Neri

Nov 07, 2023

Contents:

Chapter 1

kohonen

1.1 main module

https://github.com/sagnb/OCA

main.args()

Return args

Return arguments passed to the program

argparse.Namespace

1.2 som package

1.2.1 Submodules

1.2.2 som.kohonen module

Kohonen Map or SOM(Self Organizing Maps)

class som.kohonen.SOM(*input_matrix: ndarray*, *start_point: ndarray*, *end_point: ndarray*)

Bases: object

Self Organizing Maps

find_winner(*seed: ndarray*)

Find winner in neurons vector

Parameters

seed – numpy.ndarray

fit(*max_time: int*, *max_sigma: float*)

Adjust neuron weights

Parameters

- max_time – int
- max_sigma – float

plot_path()

Plot the fit path using matplotlib

som.kohonen.dissimilarity(*a: ndarray*, *b: ndarray*, *p: int = 2*) → float64

Return the dissimilarity between a and b

Parameters

- a – numpy.ndarray
- b – numpy.ndarray

Return dissimilarity
numpy.float64

som.kohonen.gaussian(*current_index: int*, *winner_index: int*, *current_time: int*, *max_time: int*, *max_sigma: float*) → float

Returns the result of the Gaussian function taking into account the topology of the winning neuron and the neuron currently being recalculated

Parameters

- current_index – int
- winner_index – int
- current_time – int
- max_time – int
- max_sigma – float

Return Gaussian value
float

som.kohonen.vet(*a: ndarray*, *b: ndarray*) → ndarray

Generates vector between a and b

Parameters

- a – numpy.ndarray
- b – numpy.ndarray

Return vector
numpy.ndarray

1.2.3 Module contents

Chapter 2

Indices and tables

- genindex
- modindex
- search

Python Module Index

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