## svd

May 30, 2022

Creating folder svd\_plots/windspeedKmph
Creating folder svd\_plots/windspeedKmph/reconstuction

## 0.1 Prepare Data for SVD Analysis

Doing analisys for windspeedKmph Creating svd file for windspeedKmph File created!

#### 0.2 SVD

Loading svd file for windspeedKmph

#### 0.2.1 Precision of SVD Resconstrucion

#### 0.2.2 Full Reconstruction & Lower Rank Reconstruction

Diff: 4.3518192208483686e-14

Diff reconstruction: 0.8253357196115587

#### 0.2.3 Average SVD Error

#### 0.2.4 Dates to Concept - SVD\_U

## 0.2.5 Towns to Concept - SVD\_V

## 0.2.6 SVD Maps

Ploting map for k = 0

Ploting map for k = 1

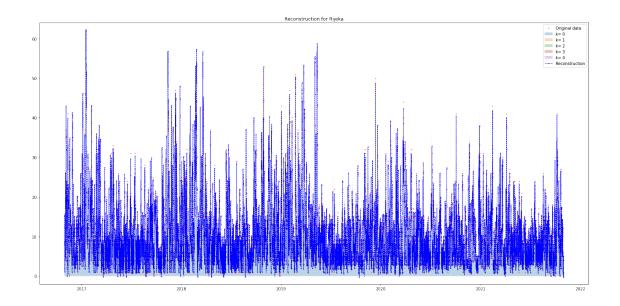
Ploting map for k = 2

Ploting map for k = 3

Ploting map for k = 4

#### 0.2.7 SVD Reconstruction

Saving reconstructins to svd\_plots/windspeedKmph/reconstuction



# 1 Export to HTML

<IPython.core.display.Javascript object>

[NbConvertApp] Converting notebook svd.ipynb to HTML

 $[{\tt NbConvertApp}] \ {\tt Writing} \ 8437987 \ {\tt bytes} \ {\tt to} \ {\tt output/windspeedKmph\_svd\_partial.html}$ 

[NbConvertApp] Converting notebook svd.ipynb to pdf

/home/HDD/00-Development/016-Diplomski/venv/lib/python3.9/site-

packages/nbconvert/filters/datatypefilter.py:41: UserWarning: Your element with mimetype(s) dict\_keys(['text/html']) is not able to be represented.

warn(

/home/HDD/00-Development/016-Diplomski/venv/lib/python3.9/site-packages/nbconvert/filters/datatypefilter.py:41: UserWarning: Your element with mimetype(s) dict\_keys(['application/vnd.plotly.v1+json', 'text/html']) is not able to be represented.

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able to be represented.
 warn(
[NbConvertApp] Support files will be in windspeedKmph_svd_partial_files/
[NbConvertApp] Making directory ./windspeedKmph_svd_partial_files
[NbConvertApp] Writing 60065 bytes to notebook.tex
[NbConvertApp] Building PDF
[NbConvertApp] Running xelatex 3 times: ['xelatex', 'notebook.tex', '-quiet']
[NbConvertApp] Running bibtex 1 time: ['bibtex', 'notebook']
[NbConvertApp] WARNING | bibtex had problems, most likely because there were no
citations
[NbConvertApp] PDF successfully created
[NbConvertApp] Writing 604967 bytes to output/windspeedKmph_svd_partial.pdf
[NbConvertApp] Converting notebook svd.ipynb to HTML
[NbConvertApp] Writing 8379089 bytes to
output/windspeedKmph svd no code partial.html
```