

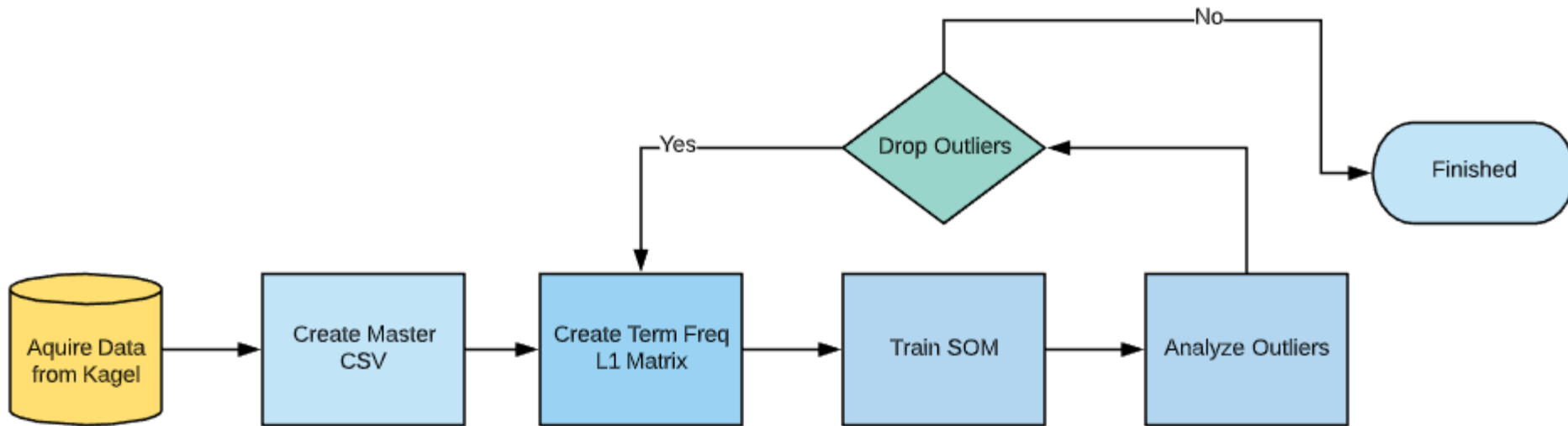
# Self Organizing Maps for Corvid 19 Articles:

Understanding the Topology of Corona Literature

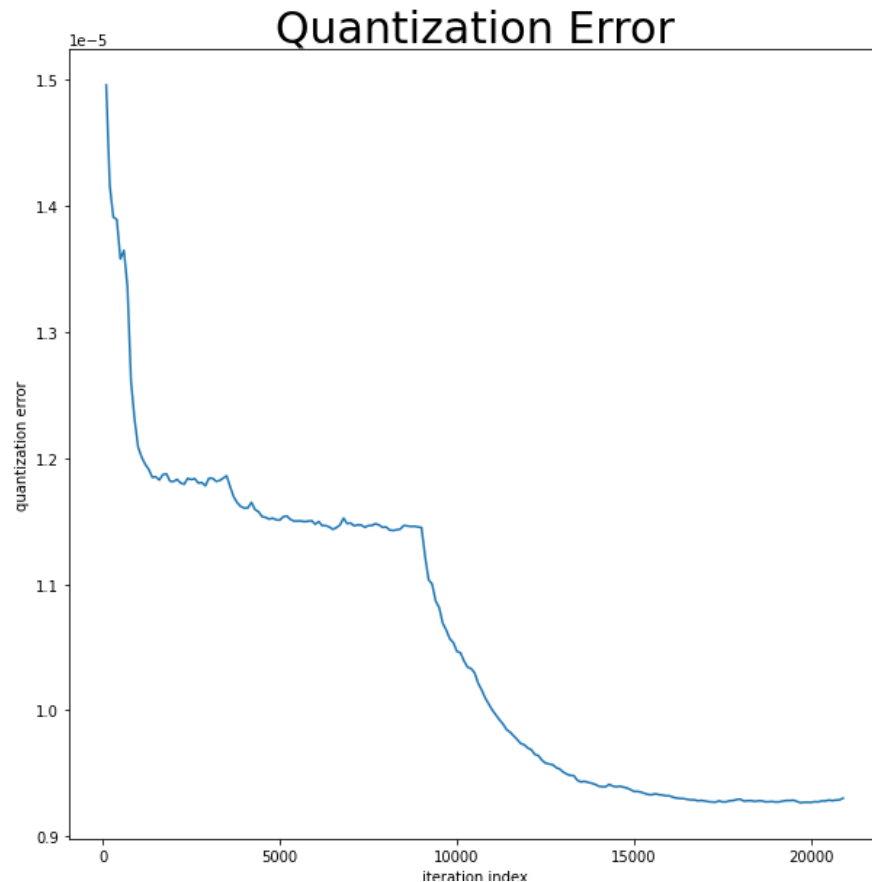
# Introduction

The following analysis employs self organizing maps in order create clusters for Covid-19 literature.

# SOM Training Process Map



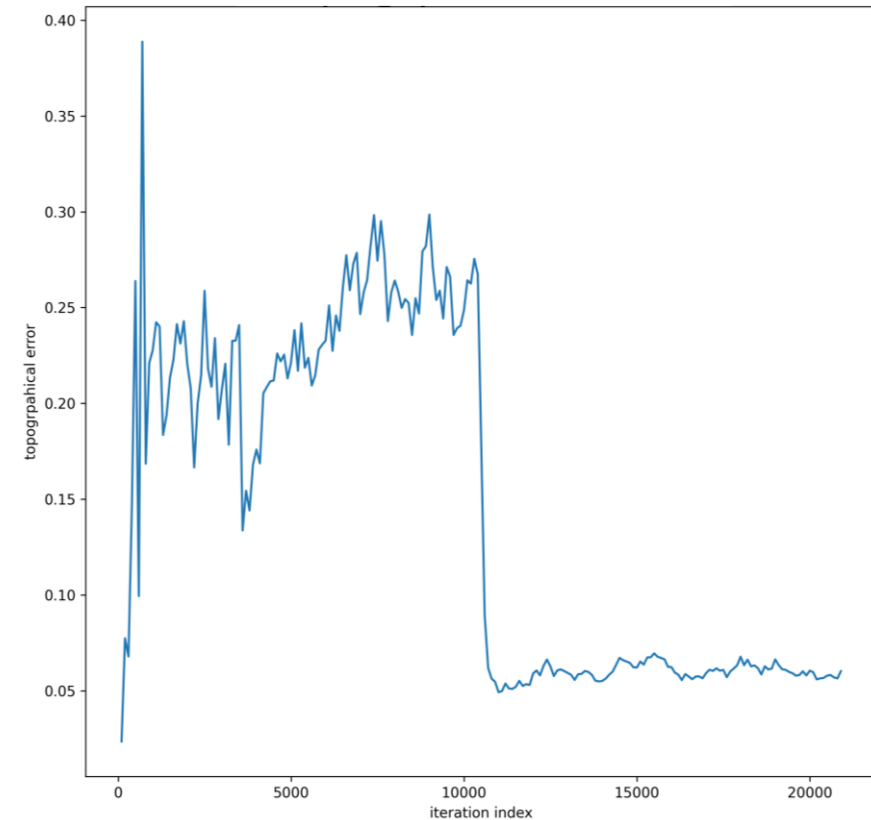
# SOM Training Error



Quantized Error:

Average distance between each data vector and its BMU. Measures map resolution

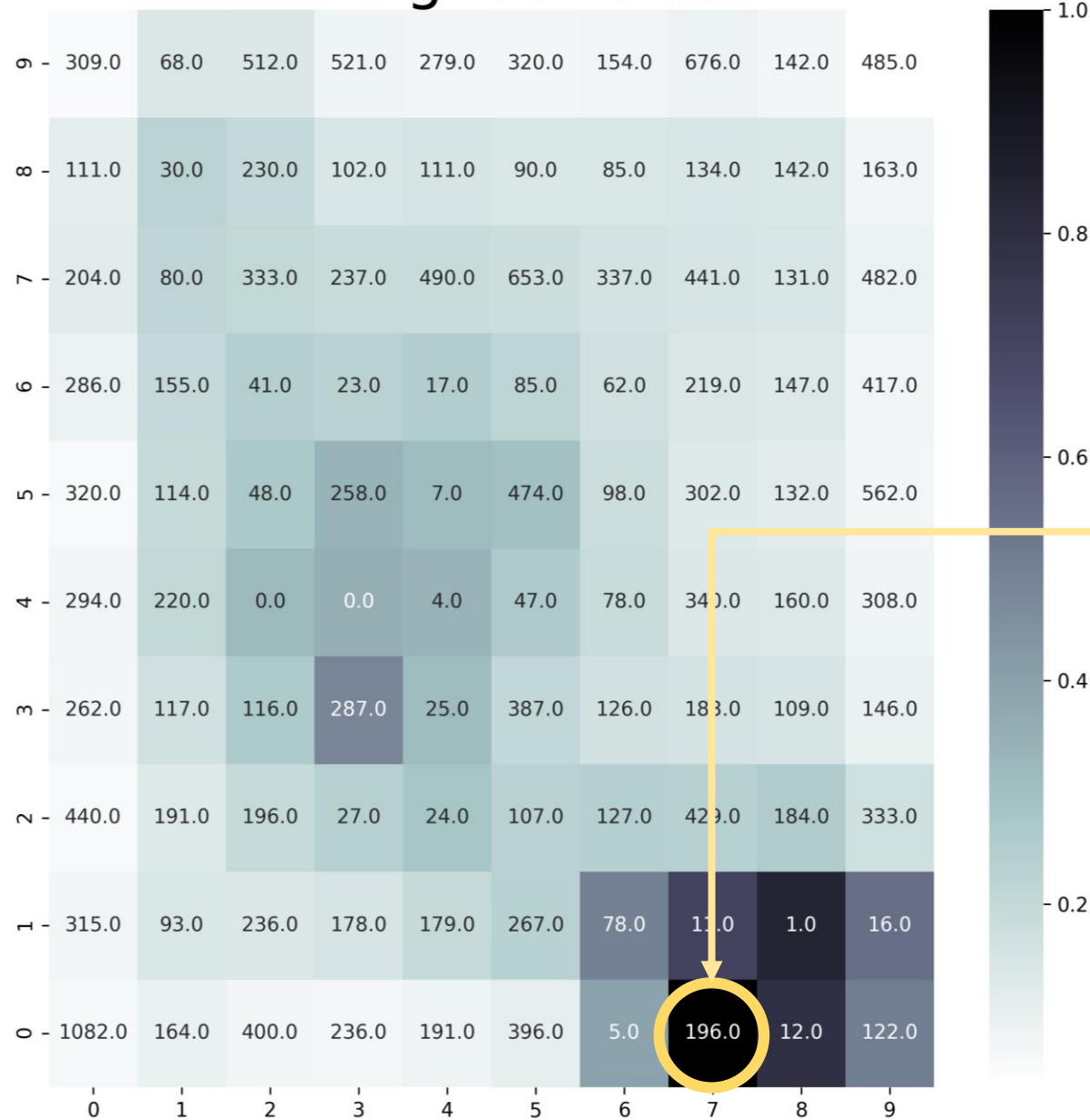
## Topographical Error



Topographical Error:

The proportion of all data vectors for which first and second BMUs are not adjacent units. Measures topology preservation.

# Foreign Articles



## Foreign Articles:

### Main Text

Essai randomisé en double insu testant l'e  
 Les pathologies infectieuses respiratoires :  
 Marie-Christine Ben6 a,\*, Gilbert C. Faure  
 Introduction. -Du fait du problème de santé  
 Conclusion. -La sensibilité de la sé rolog  
 Etiologie des gastro-ent6rites aiguës infa  
 Depuis le développement de la virologie mod  
 Les coronavirus humains (HCoV) sont à l'or  
 La diarrhée et le ténésme, associés à de l'  
 Au cours des cinquante dernières années, la

### Top Words:

- de 40.763569
- le 35.359557
- la 20.164921
- une 13.750135
- en 12.454713
- est 8.842858
- un 8.269632

# Feline and Farm Outliers:

## Feline

### Abstract

Transmissible gastroenteritis virus (TGEV) is...

Background: Feline coronavirus (FCoV) exists ...

Background: Individual enteropathogen infecti...

Though scantily investigated, Leishmania infan...

Feline coronavirus (FCoV) is an enveloped sin...

...

Background: Feline infectious peritonitis (FI...

A 7-year-old neutered female domestic shortha...

Background: Acquired myasthenia gravis (AMG) ...

One case report identified a cat with viscera...

Case summary A 15-year-old male neutered dome...

### Top Words:

- cat 24.208439
- wa 3.876159
- infect 2.513393
- thi 1.615182
- studi 1.593770
- sign 1.518701
- diseases 1.490582



## Farm

### Title

Quercetin Feeding in Newborn Dairy Calves Cann...

Antimicrobial resistance and virulence factors...

Different virulence of porcine and porcine-lik...

Longitudinal study of humoral immunity to bovi...

Effect of prebiotic supplementation with stabi...

...

Original Article

Paper Bovine respiratory syncytial virus: infe...

Clinical and sero-molecular characterization o...

Plasma citrulline, arginine, nitric oxide, and...

Effect of acetate Ringer 's solution with or ...

### Top Words:

- calv 31.184002
- wa 5.876789
- diarrhea 3.573408
- farm 3.321499
- day 2.773152
- sampl 2.467682
- studi 2.413066
- infect 2.393480
- anim 2.371733

## MERS

### Top Words:

'merscov', 'middl', 'middl east', 'east', 'respiratori  
syndrom', 'east respiratori', 'mer'

### Top Titles:

- COMPARATIVE PATHOGENESIS OF COVID-19, MERS AND SARS IN A NON-HUMAN PRIMATE MODEL
- viruses A Comparative Analysis of Factors Influencing Two Outbreaks of Middle Eastern Respiratory Syndrome (MERS) in Saudi Arabia and South Korea

## Bats and other Animal

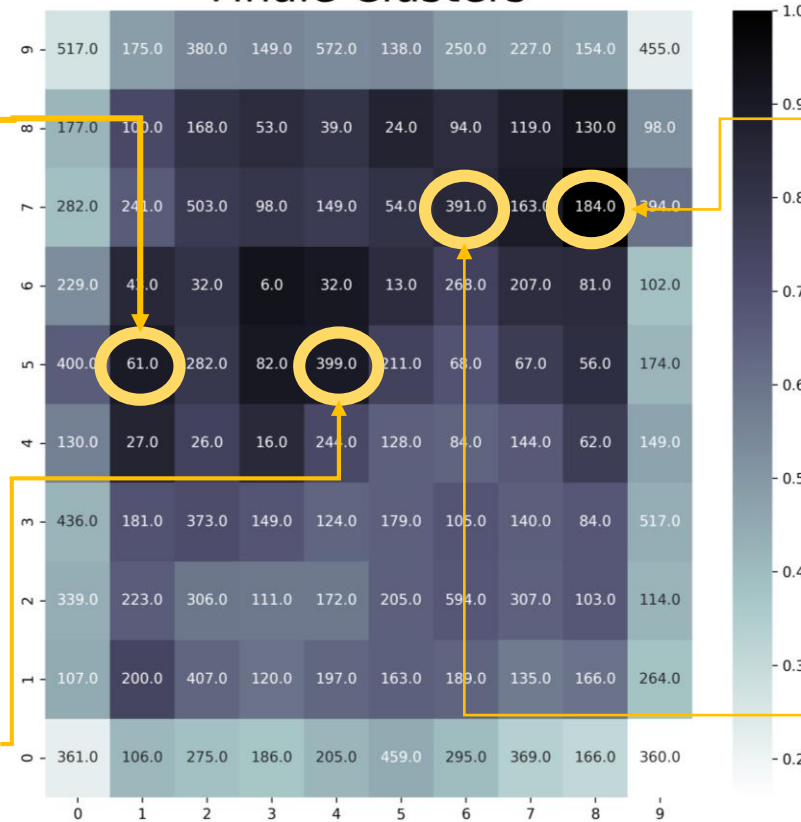
### Top Words:

'bat', 'air', 'speci', 'ventil', 'wa', 'particl', 'studi',  
'sampl', 'human', 'build', 'cov', 'virus',

### Top Titles:

- *'Quantitative Delineation of Herpesviruses in Bats for use in Ecological Studies'*
- *Ecological and evolutionary drivers of hemoplasma infection and bacterial genotype 1 sharing in a Neotropical bat community 2 3*
- *Diversity of Archaea Domain in Cuatro Cienegas Basin: Archaean Domes 1 2*

## Finale Clusters



## Cells and Proteins

### Top Words:

'protein', 'ibv', 'epitop', 'acid', 'wa', 'cell', 'amino', 'spike',  
'bind', 'peptid', 'viru', 'amino acid'

### Top Articles:

- Strategies for vaccine design for corona virus using Immunoinformatics techniques
- Strong evolutionary convergence of receptor-binding protein spike between COVID-19 and SARS-related coronaviruses
- Protein structure and sequence re-analysis of 2019-nCoV genome does not indicate snakes as its intermediate host or the unique similarity between its spike protein insertions and HIV-1

## DNA And Genome Sequencing

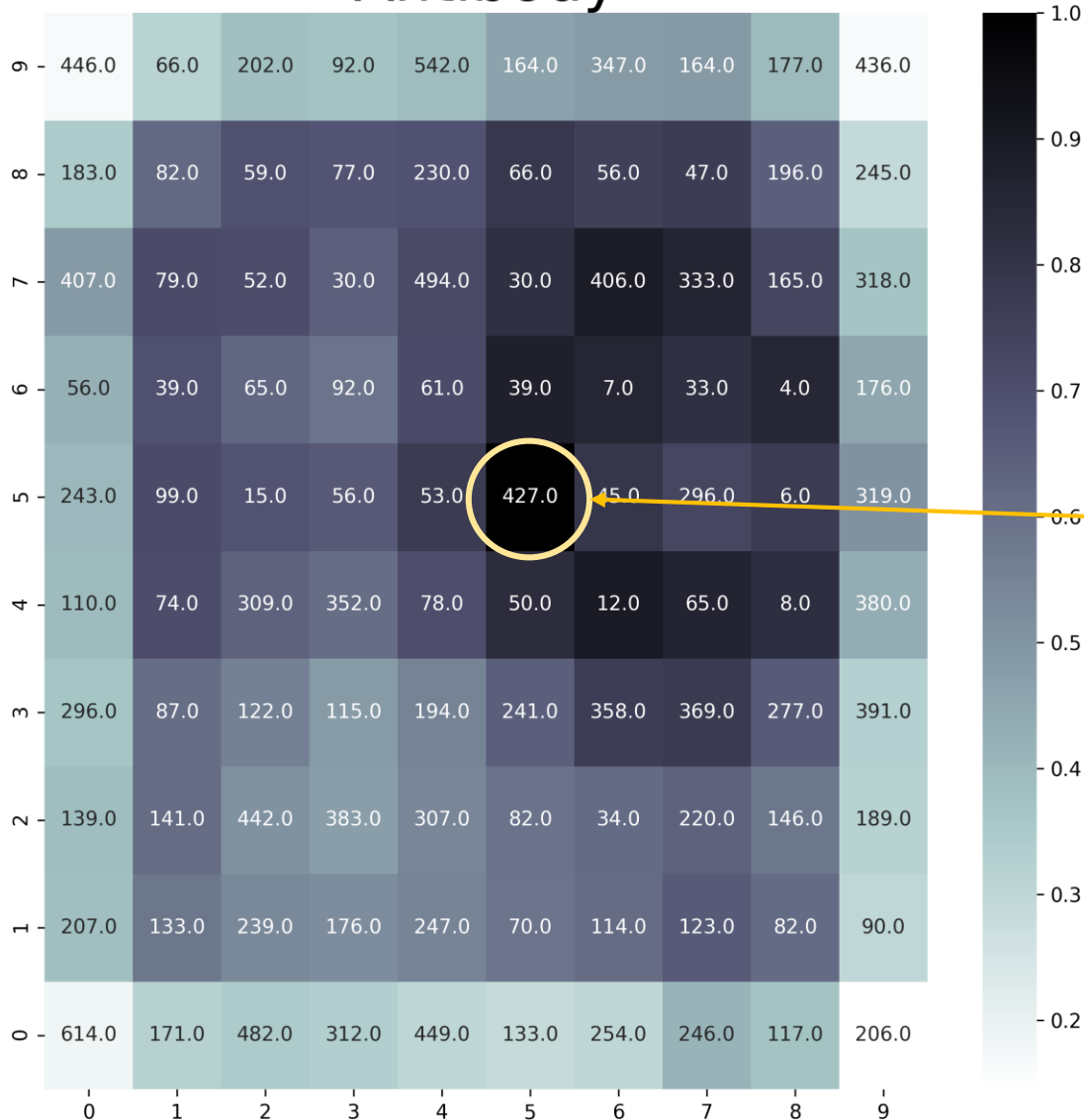
### Top Words:

'strain', 'isol', 'ibv', 'pedv', 'sequenc', 'diarrhea', 'wa',  
'genotyp', 'gene', 'piglet', 'porcin', 'genom',

### Top Articles:

- Real-time, MinION-based, amplicon sequencing for lineage typing of infectious bronchitis virus from upper respiratory samples
- A diallel of the mouse Collaborative Cross founders reveals strong strain-specific maternal effects on litter size
- Life course exposures continually shape antibody profile and risk of seroconversion to influenza

# Antibody



## Antibody:

### *Top Words:*

antibodi', 'neutral', 'mab', 'antigen',  
'monoclon', 'elisa', 'monoclon antibodi',  
'protein', 'epitop', 'viru', 'igg'

### *Top Articles:*

- 'Serological detection of 2019-nCoV respond to the epidemic: A useful complement to nucleic acid testing'
- 'An anti-Gn glycoprotein antibody from a convalescent patient potentially 2 inhibits the infection of severe fever with thrombocytopenia syndrome virus'
- 'Spike protein binding prediction with neutralizing antibodies of SARS-CoV-2 1 2'
- 'Cryo-EM Structure of the 2019-nCoV Spike in the Prefusion Conformation'



## Public Health/Disaster Response:

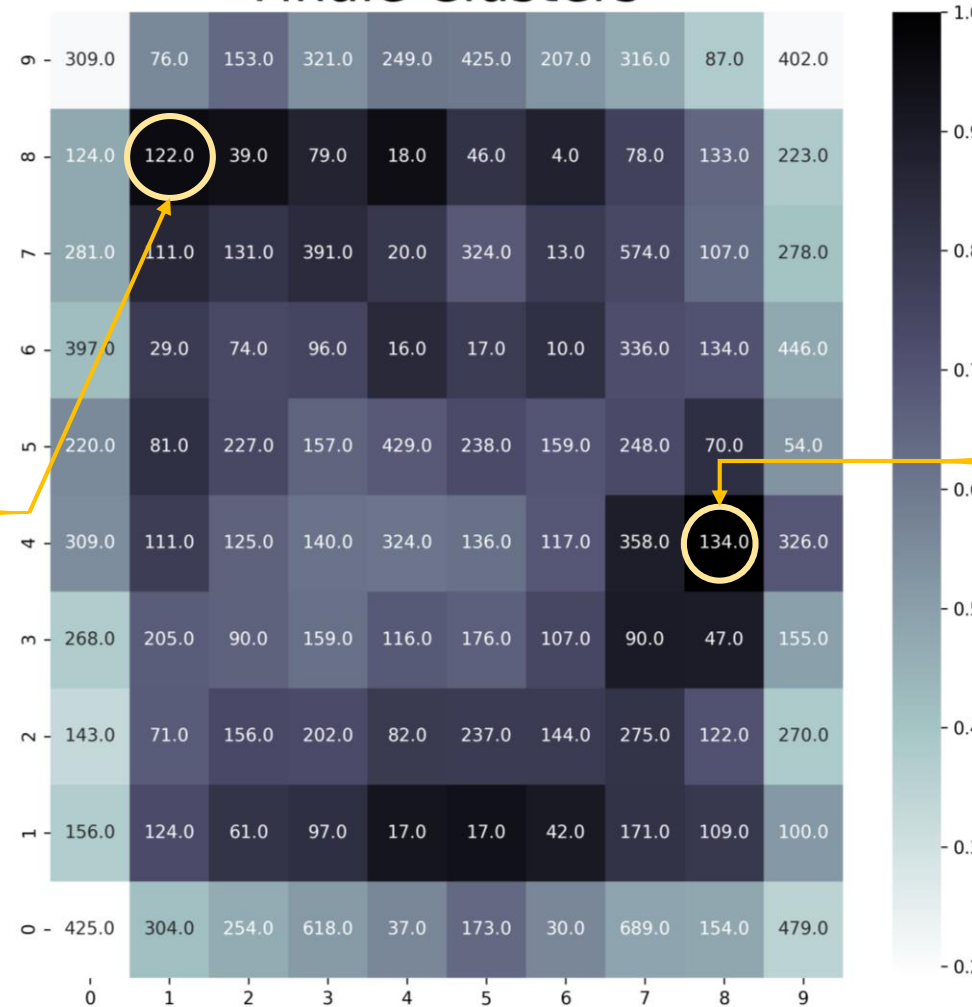
### Top Words:

'health', 'public', 'public health', 'diseas', 'pandem', 'countri', 'thi', 'infecti diseas', 'emerg', 'influenza', 'infecti', 'research', 'outbreak', 'system', 'develop', 'polici', 'world', 'risk', 'plan', 'global', 'govern', 'respons', 'commun', 'social', 'wa', 'inform',

### Top Articles:

- 'Automated collection of pathogen-specific diagnostic data for real-time syndromic epidemiological studies'
- 'An epidemiological forecast model and software assessing interventions on COVID-19 epidemic in China'
- 'Far-UVC light: A new tool to control the spread of airborne-mediated microbial 1 diseases 2'

## Finale Clusters



## SARS/Lung Complications:

### Top Words:

'sarscov', 'pro', 'sar', 'coronaviru', 'inhibitor', 'proteas', 'peptid', 'activ', 'protein', 'sever acut', 'acut respiratori', 'cov',

### Top Articles:

- 'Automated collection of pathogen-specific diagnostic data for real-time syndromic epidemiological studies'
- 'An epidemiological forecast model and software assessing interventions on COVID-19 epidemic in China'
- 'Far-UVC light: A new tool to control the spread of airborne-mediated microbial 1 diseases 2'