ADA-Project

Temporal analysis of networking activity in non-urban points of interest in Switzerland

Dataset

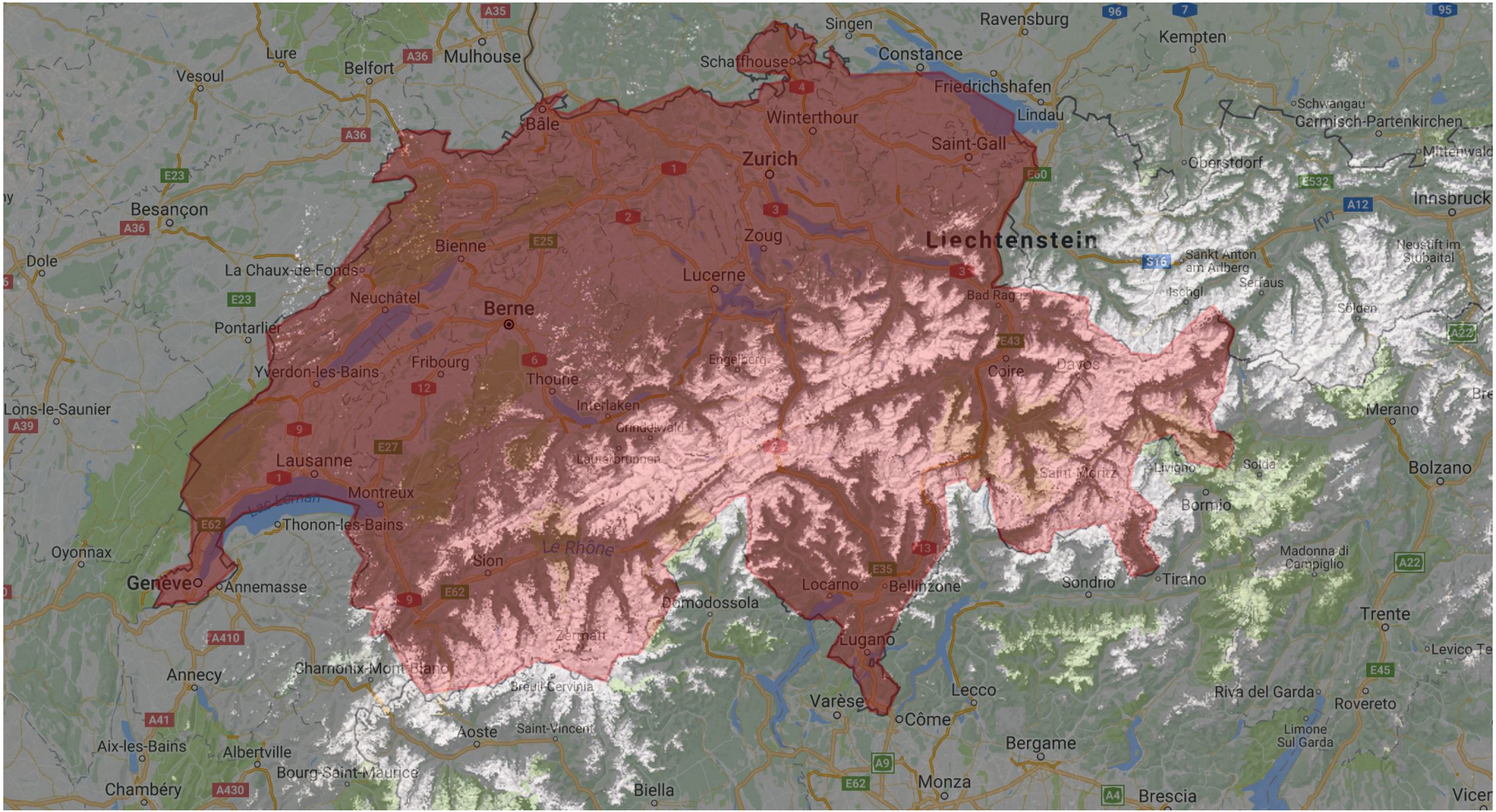
Twitter data in Switzerland
~20M tweets from 2010-2016
Geolocated

Urban detection

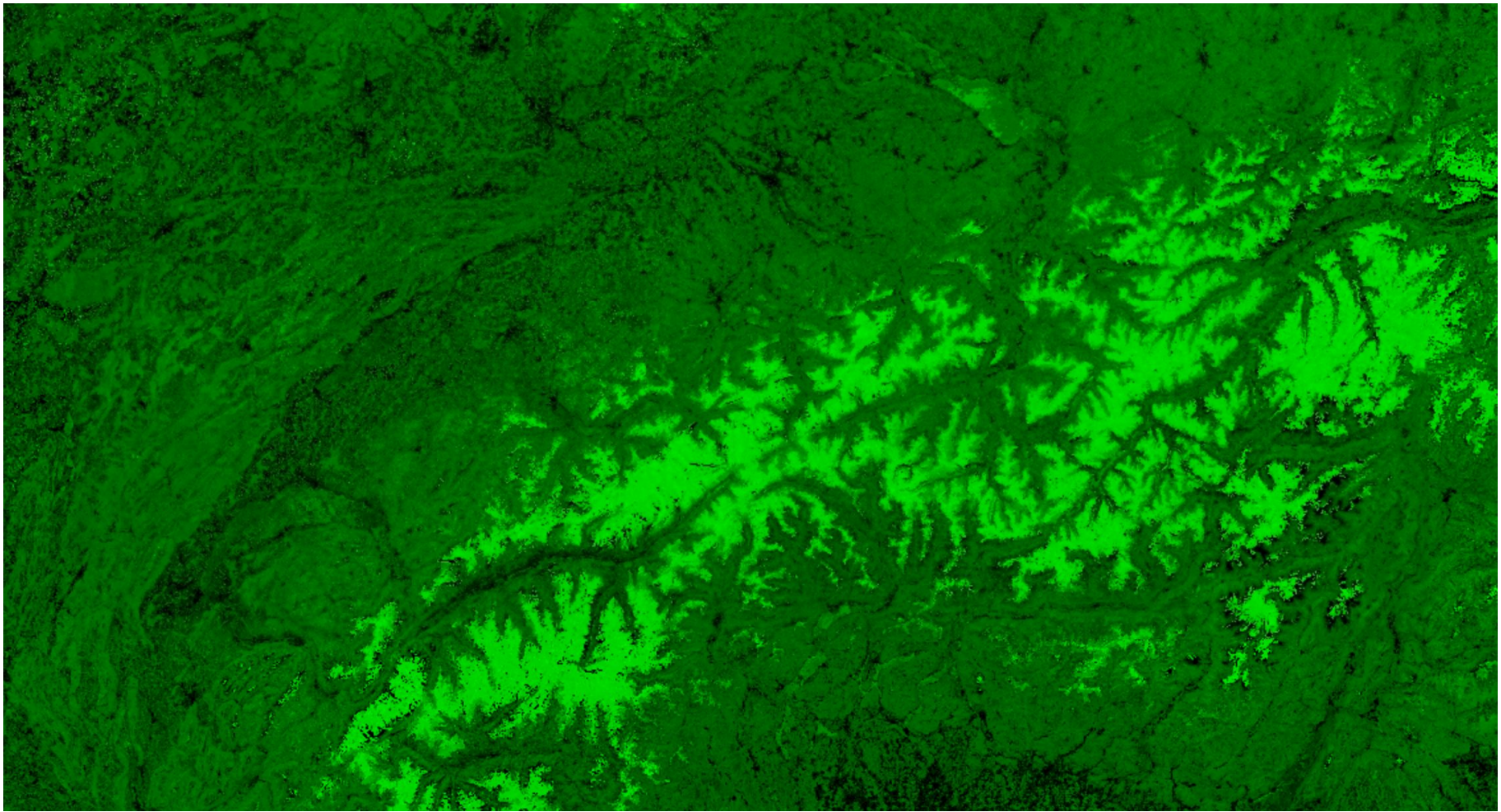
Remote sensing using Landsat 8 images

NDBI (Normalized Difference Built-up Index)

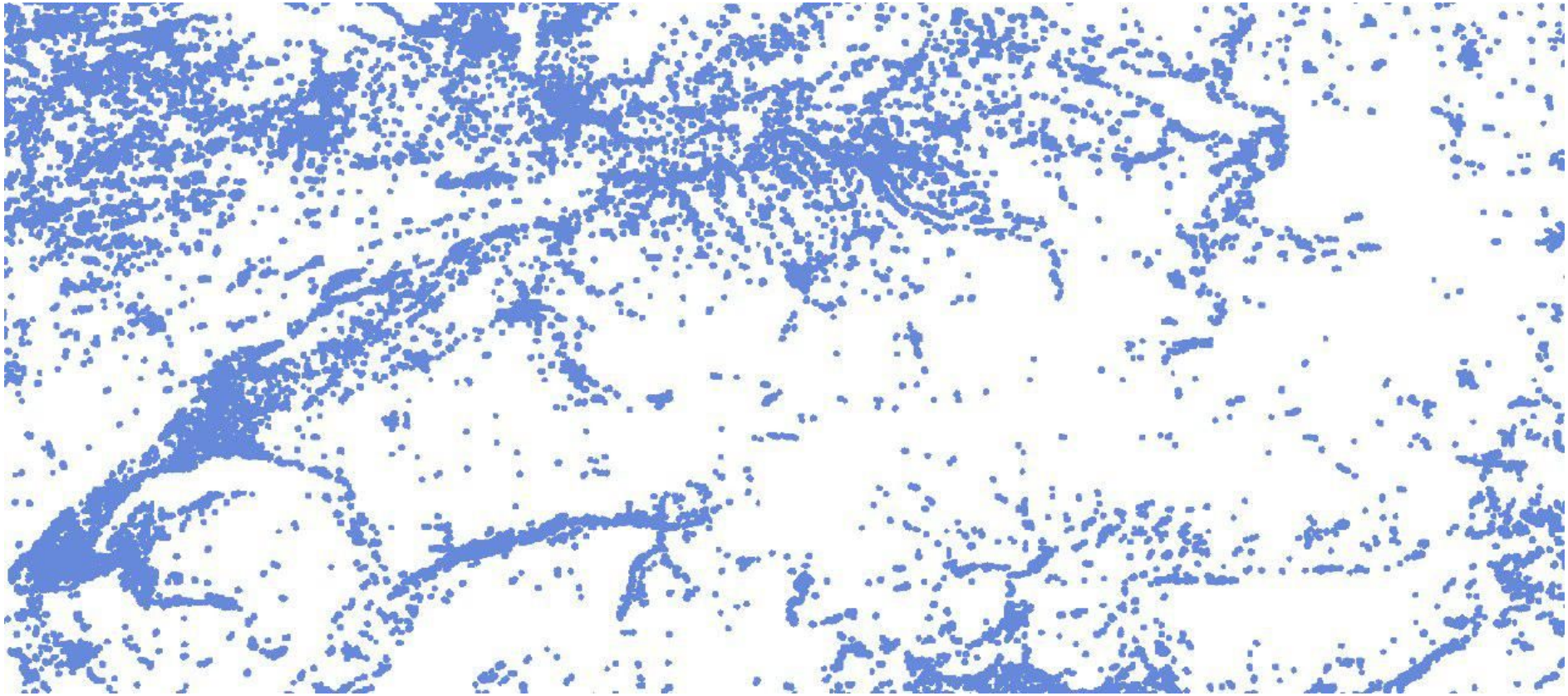
Morphological operator

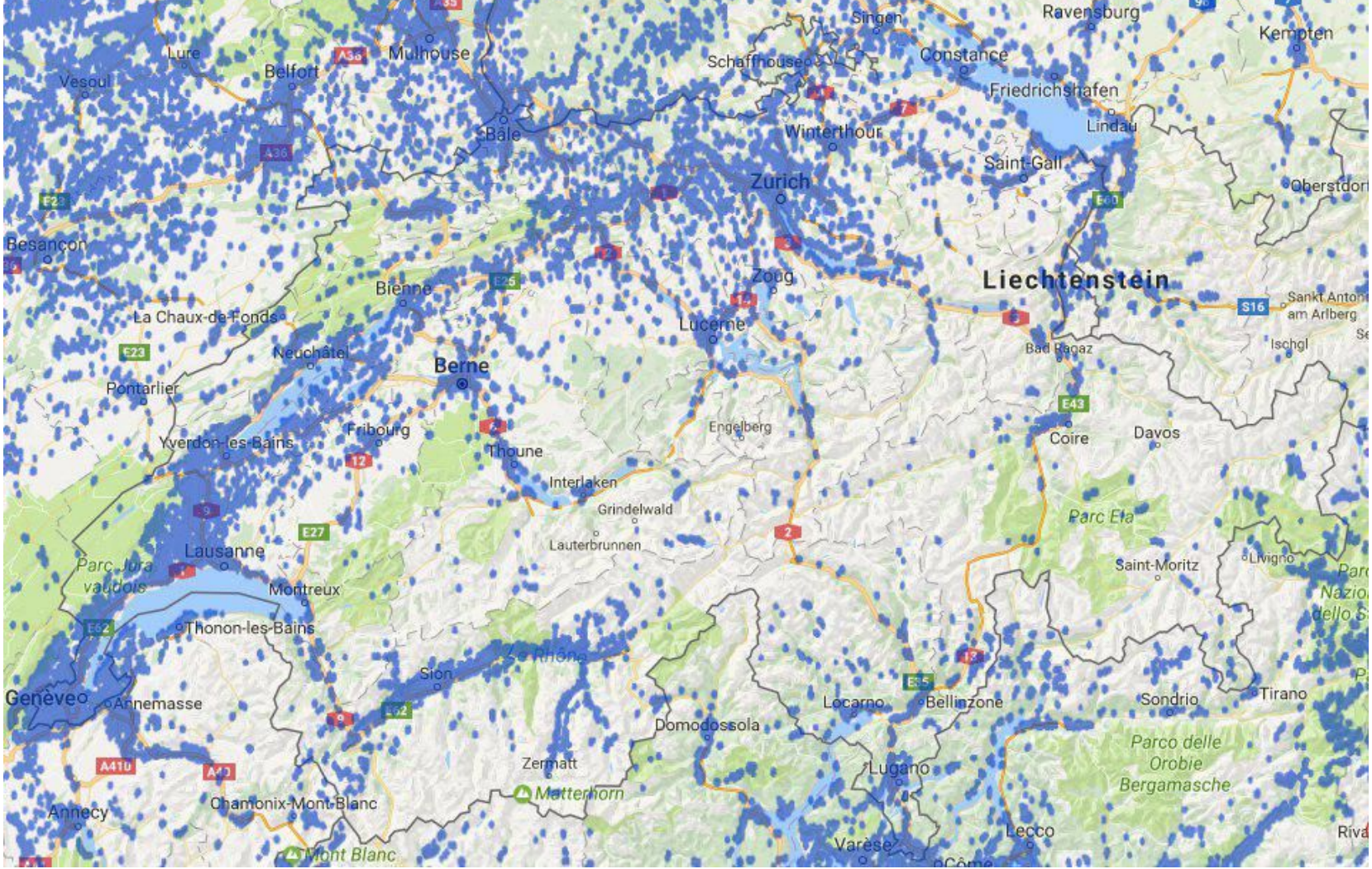

Singen
Ravensburg
Kempten
Constance
Schaffhouse
Friedrichshafen
Lindau
Schwangau
Garmisch-Partenkirchen
Mittenwald
Lure
Belfort
Mulhouse
Vesoul
Bâle
Winterthour
Saint-Gall
Zurich
Oberstdorf
Innsbruck
Besançon
Zoug
Liechtenstein
Sankt Anton am Arlberg
Neustift im Stubaital
Dole
Bienne
La Chaux-de-Fonds
Lucerne
Ischgl
Sérfaus
Neuchâtel
Bad Ragaz
Berne
Pontarlier
Engelberg
Davos
Coire
Fribourg
Yverdon-les-Bains
Thoune
Merano
Lons-le-Saunier
Interlaken
Grindelwald
Lausanne
Saint-Moritz
Livigno
Solda
Bolzano
Montreux
Le Léman
Thonon-les-Bains
Bormio
Oyonnax
Le Rhône
Sion
Madonna di Campiglio
Genève
Annemasse
Locarno
Bellinzone
Sondrio
Tirano
Domodossola
Trente
Zermatt
Lugano
Annecy
Chamonix-Mont-Blanc
Breuil-Cervinia
Lecco
Riva del Garda
Rovereto
Varèse
Côme
Aosta
Saint-Vincent
Limone Sul Garda
Bergame
Aix-les-Bains
Albertville
Bourg-Saint-Maurice
Chambéry
Biella
Monza
Brescia

NDBI - Normalized Difference Built-up Index



Smooth -> Treshold -> Morphological operator

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Annecy
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Lecco
Varèse

Clustering

Discard urban tweets using the mask

Run DSCAN clustering to find points of interest

(K-means for now)

Select top 50

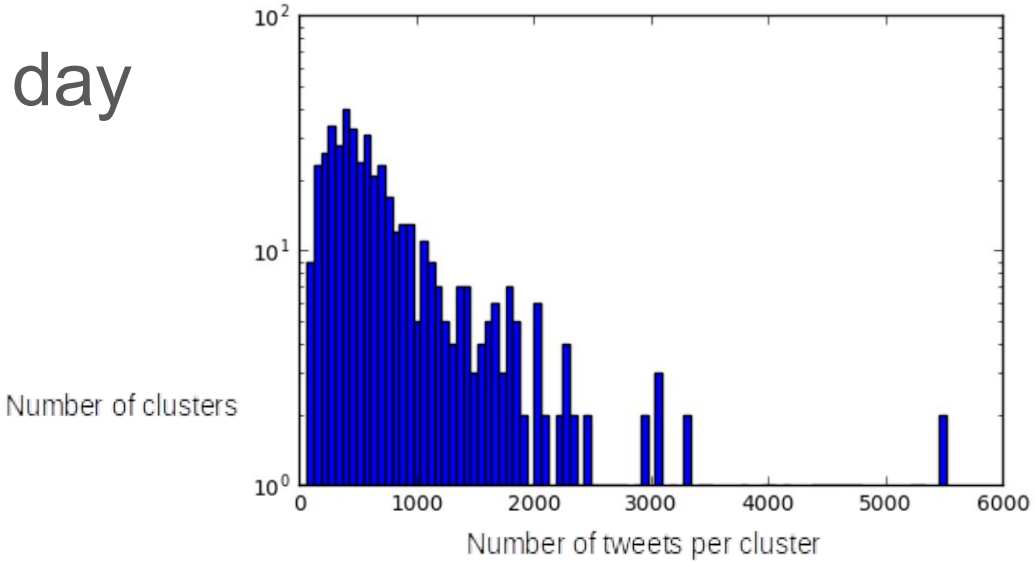
Get addresses

Stats

Group tweets by cluster and date

Compute tweets per day

Display!



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