

Determination of origins and destinations for an O-D matrix based on telecommunication activity records

Saša Dešić, Mia Filić and Renato Filjar

Introduction

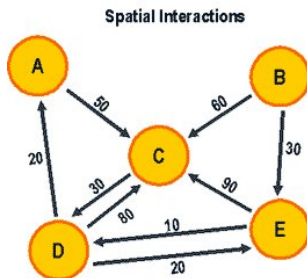


Introduction



How to track OD movemoent?

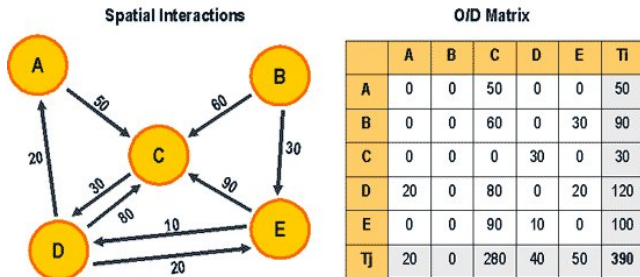
Origin Destination matrix - OD matrix



O/D Matrix

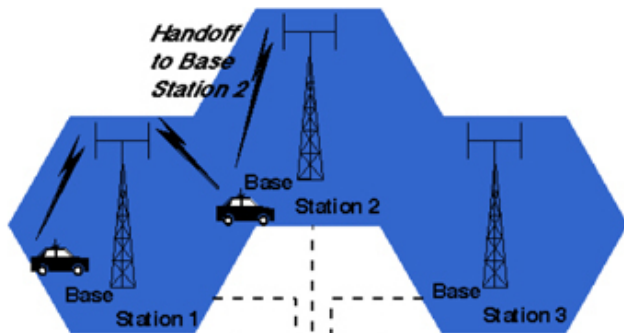
	A	B	C	D	E	Ti
A	0	0	50	0	0	50
B	0	0	60	0	30	90
C	0	0	0	30	0	30
D	20	0	80	0	20	120
E	0	0	90	10	0	100
Tj	20	0	280	40	50	390

Origin Destination matrix - OD matrix

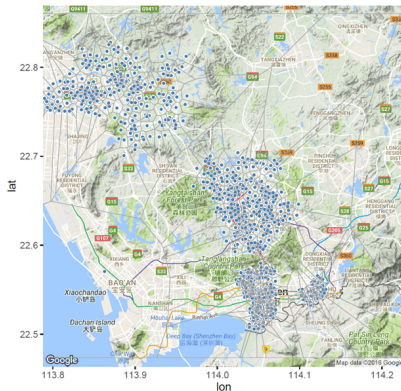
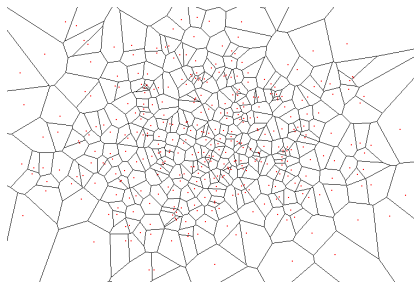


How to determine origins and destinations in spatial grid?

OD determination



OD determination



Why is it better?

OD determination

We used:

- ① CDR records
- ② Voronoi tesellation
- ③ programming language R

OD determination

Done:

- ① O/D candidates
- ② O/D candidates reduction due to CDRs

In future:

- ① further O/D candidates reduction using contextual and spatial relation between Voronoi cells seeds and points of socio-economic activities (residential areas, contextual data on shops, concert halls, ...)

Questions?

Thank you for your attention!

Mia Filić, filicmia@outlook.com